

Message

From: Sasha Mackler [smackler@summitpower.com]
Sent: 10/6/2016 3:29:29 PM
To: Sasha Mackler [smackler@summitpower.com]
CC: smackler.energy@gmail.com
Subject: New contact info for Sasha [WARNING: DKIM validation failed]

Dear Friends,

I am moving on from Summit Power Group and transitioning to a new role at Enviva. I'll still be in the DC area and will remain involved in many of the same energy and climate issues that we have been pursuing together.

My permanent contact information is noted at the bottom of this email. It's been a pleasure working with you and I hope we stay in touch going forward.

Best wishes,
Sasha

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Sasha Mackler

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Ex. 6 Personal Privacy (PP)

Message

From: Sasha Mackler [sasha.mackler@envivabiomass.com]
Sent: 5/29/2018 2:26:25 PM
To: Dunham, Sarah [Dunham.Sarah@epa.gov]; Harvey, Reid [Harvey.Reid@epa.gov]; Culligan, Kevin [Culligan.Kevin@epa.gov]
Subject: A Climate Solution We Cannot Afford to Ignore: Biomass Sourced From Naturally Managed Working Forests

Hi Sarah, Reid, and Kevin – I thought you would find the following article of interest. It outlines a practical and scientifically credible approach to carbon accounting from managed forests. Consistent with the recent statement from EPA. Happy to discuss.

Regards, Sasha

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<http://www.theenergycollective.com/rogerballentine/2433941/a-climate-solution-we-cannot-afford-to-ignore-biomass-sourced-from-naturally-managed-working-forests>

A Climate Solution We Cannot Afford to Ignore: Biomass Sourced From Naturally Managed Working Forests

May 23, 2018 by [Roger Ballentine](#) [Leave a Comment](#)



By Roger Ballentine and Jennifer Jenkins.

Outside the realm of climate change deniers, there is broad consensus that we need rapid and deep decarbonization of modern energy systems to have any chance of stabilizing global average temperature rise in the neighborhood of two degrees Celsius, the threshold widely viewed as critical for avoiding the most dangerous impacts of climate change.

However, the window of opportunity for achieving the emissions reductions needed to meet this target is narrowing quickly in the face of stubborn political and economic headwinds. We can't afford to wait: we need immediate emissions reductions, and we need them urgently.

Given these narrowing odds and the enormity of the climate crisis, any suggestion that we remove a potential low-carbon energy source or technology from our climate change mitigation toolkit bears a very high burden of proof.

This climate imperative has lessened the opposition from some environmentalists to certain energy options like nuclear power, carbon capture and sequestration, and hydropower. Forest biomass, however, is still subject to withering criticism by some in the environmental community, as well as by otherwise well-meaning commentators. The media firestorm over

EPA Administrator Pruitt’s recent announcement that the Agency plans to treat emissions from forest biomass energy as carbon neutral certainly has not helped elevate the debate.³

But categorically discounting the climate change mitigation offered by forest biomass could make the mission of rapid and deep decarbonization more difficult to achieve. Biomass can directly displace fossil fuels for energy production, and when harvested from certain forest landscapes we can – and should – treat that energy as a zero-carbon resource.

First, let’s limit the scope of the discussion. We describe a framework appropriate for evaluating the climate impacts of a critical subset of forest biomass — bioenergy feedstocks harvested from privately owned “working” forests, such as are prevalent in the southeastern United States – based on net changes in carbon stocks on the lands from which the biomass is harvested.

With this focus, we need not debate clearly “bad” biomass (*e.g.*, biomass harvested from otherwise untouched or conservation forests) or clearly “good” biomass (*e.g.*, wood wastes or residues from commercial forestry operations that would otherwise be burned or left to decompose on site) – we should not use the former and there is not enough of the latter to make a meaningful difference.

We are also not addressing here the very important concerns about how forest product harvesting can impact important issues like biodiversity, water quality, or habitat value. These concerns are not germane to determining the ultimate climate impact of bioenergy but can – and should – be addressed by separate sustainability guidelines and best practices.

Energy from biomass harvested from managed working forest landscapes where growth outpaces harvest is zero-net-carbon energy.

Yes, biomass combustion emits CO₂. And yes, it’s true that biomass utilization can be less efficient, in terms of CO₂ emitted per unit of energy produced, than fossil fuels in conventional thermal and power plants. And while it is true that a molecule of emitted CO₂ has the same warming impact regardless of its source, it does not necessarily follow that emissions from biomass combustion should be treated as new net-positive CO₂ added to the atmosphere.

If biomass energy feedstocks come from working forest systems in which harvested wood is continually and in real time completely replaced by new growth — the substitution of this energy source for fossil fuel eliminates fossil emissions without adding any new and net incremental CO₂ to the atmosphere at the time of combustion.⁴

A market for sustainably sourced bioenergy creates incentives for better forest management and the maintenance of net carbon stocks, particularly on privately owned lands.

Many criticisms of forest bioenergy make the mistake of not distinguishing managed working forests, like those in the southeastern U.S. that are managed in such a way as to maintain net carbon stocks, from other types of forest landscapes, such as conservation lands.

The private working forest landscape in the Southeast is managed to continually produce an array of products into the forest products market, only a small portion of which are bioenergy feedstocks. And by “managed” we mean that harvest, growth, and regeneration are constantly occurring across the forest landscape so that when one stand is harvested, the carbon removed from that pool is being returned by new growth elsewhere on the landscape⁵.

While one could argue that the most climate beneficial management approach would be to let forests grow unfettered without ever harvesting them, that scenario is not the relevant or realistic “counterfactual” *for private working forests, particularly in the SE, which is one of the most productive commercial wood-producing regions in the world*. Rather, research on this question suggests that the opposite is true.

Absent demand for forest products – including an economic outlet for low-value fiber such as that used for energy — the working forest landscape in the U.S. Southeast would grow more slowly with respect to the amount of merchantable timber they produce or possibly even decline, and therefore would likely sequester less carbon.⁶

We know this because there is a positive relationship between forest harvest and forest growth in these landscapes: somewhat counterintuitively, it is the profitable harvest of trees that give landowners the reason to continue actively managing these forests for growth and bioenergy markets are a key part of these economics (providing a market for low-quality material harvested from the forest but undesirable for other uses).

And if these working forests are not producing profits for the landowner there is the additional risk they could be converted to another revenue-generating use involving the clearing of part if not all of the forest – the worst possible climate outcome.⁷

For managed working forests, a focus on the temporary CO₂ emissions of a given isolated harvest misses the larger climate-relevant point.

Without question, harvesting and combusting biomass from a forest stand results in net emissions *from that forest sub-unit* until the stand in question regrows biomass equal to what was harvested from it.

But for a working managed forest landscape, at any given time, across all the different stands that make up that landscape, the forest is yielding emissions from those units being harvested *while simultaneously* sequestering carbon as a result of new growth and regeneration in other units harvested previously. This is how sustainably managed working forests have always operated.

Every year in the southeastern U.S., 2% of the working forest is being harvested while the remaining 98% is in various stages of regrowth (and within that 2%, several different forest products are produced, a small but economically important portion of which is biomass for energy use). The International Energy Agency (IEA) has described the role of bioenergy production in sustainably managed forests:⁸

*Biomass extraction for energy is one of many interacting factors influencing the development of forest carbon stocks, including forest product markets, forest ecosystem structure and management, and natural conditions. Silvicultural operations and harvest activities are coordinated across a forest landscape to maintain a healthy forest and to obtain a continuous flow of wood for society, while maintaining or increasing wood volume in the forest. Carbon losses in some stands are balanced by carbon gains in other stands, so that across the whole forest landscape the fluctuations in carbon stock even out.*⁹

Building a carbon accounting policy framework for working forests by attempting to model emissions and sequestration for an individual tract at the stand level ignores the carbon that is being re-sequestered by the re-growing portions of the previously harvested landscape; only simultaneous analysis of emissions and regrowth can determine the net climate impact of a given landscape. The production of wood in response to market demand is enabled by the simultaneous management of a very large number of stands on the landscape, not by management of one individual tract over time.

If there is net sequestration at the scale of the managed forest landscape, then a specific harvest within that landscape is *not* a net emission that must be “accounted” for; the climate is receiving a net CO₂ *benefit* or dis-benefit depending on the change in carbon stocks on that managed forest landscape. The management of the working forest system *as a whole*, *land-use trends, changes in carbon stocks, net storage in long-lived products as well as the impact on the use of other products* determines the net climate impact.

For those steeped in the language of corporate carbon accounting, net climate impact is how we do carbon accounting and reporting. One could analogize to how a corporation reports

and tracks greenhouse emissions. A given factory or facility, for example, may produce an increase in emissions (as might a portion of a working forest), but if other units of the company reduce their emissions correspondingly, the company reports no net increase in emissions.

Similarly, if there is a net increase in carbon stocks year over year in a given working forest landscape then the use of forest products for energy should not be “assigned” emissions independent of the net sequestration of the working forest landscape from which they came.

An approach that focuses on actual, measured changes in carbon stocks over time is more practical and offers greater assurance of climate benefits than an approach that relies on speculative modeling and unrealistic “counterfactuals”.

Some forest bioenergy critics take the position that climate benefits should be assessed by comparison to modeling scenarios that assume no forest harvest at all, or perhaps no forest harvest for energy purposes. Modeling is not the best way to formulate a carbon policy, because modeling alternative scenarios is complex and necessarily entails numerous assumptions and as a result to date has proven ineffective at predicting future trends.

Modeling inevitably includes the heroic assumption that a model can reliably predict what would happen to future markets for forest products absent the additional driver of demand for energy applications. And perhaps more importantly, a counterfactual of unfettered growth with little or no harvesting is simply not applicable for most private working forests such as those that are prevalent in the southeastern U.S. Without harvest (and the income it generates), some portion of these forests assets is likely to be converted to crops or other non-forest uses.

There is no need for speculative modeling: measured data can be used to determine if the forest landscape is, in net, sequestering or losing carbon. If (and only if) it is net sequestering, then energy from biomass harvested from that landscape should be treated as carbon-neutral. The European Union’s proposed clean energy policy follows this approach.¹⁰

Far from labeling all biomass, regardless of its source, as “carbon neutral,” a landscape-level, carbon stock framework for managed working forests appropriately bounds the designation of climate-beneficial forest biomass energy.¹¹

Such a carbon accounting policy approach, along with other non-carbon environmental safeguards, will help maintain a viable forest products industry, incentivize sustainable forest management, and ensure that appropriately-sourced bioenergy remains available as an alternative to fossil fuel use.

Policies pertaining to forest bioenergy, whether they are imposed by governments or adopted voluntarily, must reflect several key points:

- We should not categorically remove forest biomass from our climate mitigation toolkit and we need not label all biomass as “carbon neutral”. We should use biomass from landscapes where carbon stocks are stable or increasing and where adequate sustainability standards are met.
- Owners of working forests are more likely to manage their assets in ways that foster stable or increasing carbon stocks when markets for forest products are robust. Perhaps counterintuitively, research suggests that increased demand for forest biomass can lead to management practices that are more likely to maintain forest carbon.
- Modeling is not needed to apply this framework, since there is an existing robust system for providing actual regional inventory data can be used to directly quantify carbon stocks at the landscape scale.
- Important international scientific bodies and environmentally progressive governments support the landscape carbon stock approach.
- The landscape/sustainable harvest approach will give would-be bioenergy consumers clear guidance as to a carbon neutral subset of biomass they can source.
- Simply limiting biomass energy use to very narrowly sourced feedstocks (such as sawmill residues) will miss the opportunity to further reduce net carbon emissions to the atmosphere as the supply chain will be inadequate to enable fossil users to invest in conversion; these users will transition to lower carbon options only if they can secure a supply base at scale that can guarantee bankable delivery.

As in most energy and climate debates, the issues surrounding forest biomass are complex. All energy production technologies, including options like wind and solar, have advantages and drawbacks, and all have elicited legitimate environmental concerns. Biomass is no exception and its specific attributes mean that it will be important to apply robust sustainability criteria and other environmental protections—including tracking of net carbon stocks in source forests—as a condition of using additional wood for energy production.

But biomass has advantages, in terms of supply reliability and compatibility with existing energy infrastructure that can accelerate the displacement of fossil fuels in the near term. A policy based on unrealistic counterfactuals or that focuses only on the carbon impacts in only a subset of a larger working forest misses the forest for the trees, so to speak, and risks

foregoing a low-carbon energy option that—given the scale and urgency of the climate challenge—we can ill afford to lose.

By Roger Ballentine¹ and Jennifer Jenkins²

1 Roger Ballentine is the President of Green Strategies, Inc. He served as Chairman of the White House Climate Change Task Force under President Bill Clinton and is the Co-Chair of the Aspen Institute Clean Energy Innovation Forum.

2 Jennifer Jenkins is Vice President and Chief Sustainability Officer at Enviva Biomass. She holds a PhD in ecosystem ecology from the University of New Hampshire and a Master of Forest Science from Yale University's School of Forestry and Environmental Studies.

3 In the current environment it is hard to separate the details of any EPA policy from its controversial Administrator. We don't here defend or dissect what EPA did, but EPA has not indicated that carbon neutrality is assumed automatic under all circumstances and for all time: EPA has committed to revisit its policy should the trajectory of US carbon stocks shift. Irrespective of EPA's policy, we suggest a narrow framework that can put the right biomass into our climate toolkit.

4 Of course, the production and transportation of bioenergy products like pellets have emissions associated with them. It is the same with the production and transportation of Chinese solar panels. We do not attribute such supply chain emissions to the emissions rate of the energy eventually produced.

5 Note that typically a share of the carbon removed from the forest – the portion of the harvested timber that is sold into sawtimber markets – is stored over the long term in harvested wood products, providing additional sequestration. Far from reducing these climate-helpful uses of forest biomass, a market for low value fiber such as for bioenergy helps support the economics of these uses.

6 According to a report published in July 2017 by Forest2Market that examined data from the U.S. Department of Agriculture's Forest Service Forest Inventory and Analysis for the southeastern U.S. over the six decades from 1953 to the present. Over that period, the data confirm a positive relationship between forest harvest and forest growth, indicating that landowners responded to a stable market for forest products by planting more trees. Jefferies, H.M., T. Leslie. 2017. Historical Perspective on the Relationship between Demand and Forest Productivity in the US South. <https://blog.forest2market.com/forest2market-report-shows-increased-demand-for-wood-fiber-leads-to-forest-growth>

7 Dale, V. H., Kline, K. L., Marland, G., & Miner, R. A. (2015). Ecological objectives can be achieved with wood-derived bioenergy. *The Ecological Society of America Frontiers in Ecology and the Environment*, 297-299.

8 <http://www.ieabioenergy.com/>

9 <https://www.chathamhouse.org/sites/files/chathamhouse/publications/2017-04-05-IEABioenergy.pdf>

10 The current version of the EU's RED2 package, "Clean Energy for all Europeans," considers the use of U.S.-sourced biomass in stationary facilities such as power plants as a greenhouse gas reduction tool only if the biomass is sourced from a supplier whose forest stocks are stable or increasing. As agreed by Plenary Vote in the EU Council on December 18, 2017 and by Plenary Vote in the EU Parliament on January 17, 2018.

11 Moreover, there is little potential for detrimental "leakage" from these forests whereby increased demand for bioenergy from managed forests shifts overall demand and results in increased harvesting from forests that are not managed for continued growth. The decline of the region's pulp and paper industry since the 1980s (due to a broader reduction in demand for paper and printed products) has made an abundance of low-quality feedstocks available. Woodall, C. W., Ince, P. J., Skog, K. E., Aguilar, F. X., Keegan, C. E., Sorenson, C. B., . . . Smith, W. B. (2012). An Overview of the Forest Products Sector Downturn in the United States. *Journal of Forest Products*, 595-603. Further, even if concerns remained about demand for feedstocks increasing to the point where local leakage became a problem, these concerns could be mitigated by monitoring the forest landscape over time to ensure that overall carbon stocks are stable or increasing. Provided the landscape carbon stock analysis is conducted over an area large enough to capture any effects of leakage outside a given producer's supply region, this approach would provide confidence that the use of the producer's feedstocks for energy purposes is not leading to additional greenhouse gas emissions.

Photo Credit: [Andrea Kirkby via Flickr](#)

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Message

From: Burhop, Anna [anna.burhop@bracewell.com]
Sent: 2/28/2018 8:49:32 PM
To: Gunasekara, Mandy [Gunasekara.Mandy@epa.gov]
CC: Dunham, Sarah [Dunham.Sarah@epa.gov]; Harvey, Reid [Harvey.Reid@epa.gov]
Subject: Enviva Comments on CPP ANPRM
Attachments: Enviva EPA ANPRM 2.26.18.pdf

Mandy, Sarah, and Reid,

Thank you again for meeting with Enviva last week regarding the Clean Power Plan and biomass. I have attached the comments we filed on the ANPRM.

Best,
Anna

ANNA BURHOP

Principal

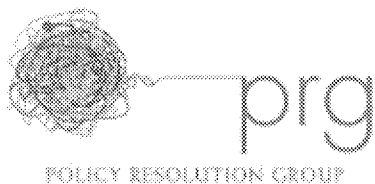
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February 26, 2018

Scott Pruitt
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Ave NW
Washington, DC 20460

Re: State Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units Docket ID No. EPA-HQ-OAR-2017-0545

Dear Administrator Pruitt:

Enviva Holdings, LP (Enviva) appreciates the opportunity to provide the U.S. Environmental Protection Agency (EPA or Agency) the following comments on the Agency's advanced notice of proposed rulemaking (ANPRM) on *State Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units* (EGUs).¹

As explained in more detail below, Enviva supports the establishment of guidelines to limit greenhouse gas (GHG) emissions from the electric sector. Biomass utilization broadly can result in GHG reductions from electricity generation, and biomass co-firing in particular is one such compliance strategy that could be implemented at the source to reduce emissions of GHGs.² Our comments, in summary, are that utilization of biomass fuel, such as wood pellets, is logistically simple, achieves greenhouse gas emission reductions within the fence-line of a source, and thus improves the carbon efficiency of these EGUs considerably. To take full advantage of this opportunity, EPA should consider taking the following steps:

- Provide guidance on the role of biomass energy in the United States electricity system;

¹ State Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units, 82 Fed. Reg. 61,507 (December 28, 2017). Online at: <https://www.gpo.gov/fdsys/pkg/FR-2017-12-28/pdf/2017-27793.pdf>

² As explained throughout these comments but stated here for clarity, Enviva's perspective on the GHG benefits associated with the utilization of biomass fuel is based on the recognition that biogenic carbon can have a different climate impact than fossil carbon. The emission reductions resulting from the utilization of sustainably sourced biomass are for reporting and accounting purposes and depend on a regulatory framework that recognizes how this is different from physical emissions.

- Include utilization of woody biomass as an approved emissions reduction strategy in its GHG emissions reduction guidelines for EGUs by either including it in the Agency's evaluation of best system of emissions reduction or by providing states with clear guidance and direction on the inclusion of biomass utilization, such as co-firing, in state plans;
- Clarify the life-cycle carbon benefits of biomass-fired generation; and
- Clarify that biomass utilization at existing EGUs will not trigger NSR.

As the world's largest producer of wood pellets, Enviva appreciates EPA's consideration of this topic and looks forward to serving as a resource as the Agency considers how to develop these emission guidelines.

I. ENVIVA IS THE WORLD LEADER IN THE PRODUCTION OF WOOD PELLETS FOR THE REDUCTION OF CARBON EMISSIONS IN UTILITY-SCALE GENERATION

Enviva is the world's largest producer of wood pellets, a biomass feedstock that can be co-fired with coal to reduce EGU emissions. Enviva owns and operates seven industrial-scale pellet production plants in the Southeastern United States with a production capacity of more than three million metric tons per year. Our plants are located in states with growing forests—Virginia, North Carolina, South Carolina, Florida and Mississippi—with headquarters in Bethesda, MD. At our facilities and headquarters, Enviva directly employs more than 700 people and has created hundreds of jobs in the regions where we operate.

Enviva offers electric utilities an opportunity to meet their GHG emissions obligations while continuing to operate their coal-fired EGU. Enviva's customers use wood pellets as a substitute fuel for coal in dedicated biomass boilers or co-fired with coal power plants. Wood pellets serve as a suitable "drop-in" alternative to coal because of their comparable heat content, density, and form, enabling our customers to meet the unique needs of electricity generation – stable, secure, uninterrupted supply that is carbon beneficial.

II. COMMENTS

Enviva provides EPA the following comments on the use of woody biomass as a strategy for reducing GHG emissions at existing coal-fired EGUs. Utilizing woody biomass as a fuel to generate electricity is a commercially available technology that has been demonstrated to achieve GHG emission reductions at existing EGUs. As it develops GHG emission guidelines for existing EGUs, EPA should recognize woody biomass as a strategy for achieving these reductions.

A. Woody Biomass is a Well-Established Commercially Available Means for Achieving Credible GHG Emission Reductions

Woody biomass is a domestic renewable fuel source, which when utilized at existing coal-fired electricity generating units, results in myriad benefits, such as reducing power sector emissions, encouraging better forest management practices, and supporting local markets for forest resources. Because a distinction should be drawn between biogenic and fossil carbon, described in more detail in Section B of these comments, woody biomass can contribute significant GHG benefits for EGUs when measured at the point of generation.

Co-firing woody biomass at existing coal-fired EGUs involves the addition of a carbon beneficial fuel blended with a reduced amount of coal to produce an equivalent amount of electricity. With minimal capital investments, existing coal-fired capacity can also be converted to use only biomass for generation. Woody biomass is uniquely qualified as a domestic renewable fuel capable of being utilized at existing coal-fired EGUs and providing large-scale reliable and resilient baseload power to the grid.

The use of woody biomass at existing EGUs has been clearly demonstrated by the experience of large scale power providers in Europe. In fact, co-firing has been demonstrated at over 228 installations worldwide across a variety of boiler types.³

In 2017, roughly 17 million metric tons of wood pellets were used by large power providers in concert with coal-fired electricity generation or in dedicated biomass facilities to reduce GHG emissions from the power sector.⁴ The United Kingdom (UK) and the European Union (EU) have adopted extensive regulatory programs to limit greenhouse gas emissions from the power sector. These regulatory programs encourage the use of biomass to produce power as a means for deploying renewable energy sources and achieving reduced GHG emissions. For example, the EU's Renewable Energy Directive considers sustainably sourced forest biomass to be a renewable energy source with net zero carbon emissions at the stack as a means for accounting for the carbon benefits that accrue from growing carbon stocks in areas where biomass resources are sustainably grown.

Drax, a British power provider generating 7% of the electricity consumed in Britain (3,960 MW), operates six generation units; half of the total capacity is now powered by biomass, and Drax intends to increase the rate of biomass utilization going forward. Over the course of 2016, Drax achieved an 86.8% reduction in CO₂-equivalent life cycle emissions relative to the benchmark for coal-fired generation in the UK using the UK's current policies that treat biomass-fired generation as a net-zero emissions source.⁵

The experience of large-scale power producers in Europe and the United Kingdom can be replicated in the United States. According to a recent study of existing coal fired power plants in the Western United States, co-firing woody biomass at a 20% rate would reduce emissions by 32% from 2005 levels by 2030.⁶ Additionally, a technical report authored jointly by the Idaho National Laboratory and the Pacific Northwest National Laboratory, found that 20% co-firing at coal plants in Alabama and Ohio would result in lifecycle emissions reductions of 16% and 14% respectively.⁷

³ Al-Mansour, Fouad, and Jaroslaw Zuwala. "An evaluation of biomass co-firing in Europe." *Biomass and Bioenergy*, Volume 34, Issue 5, May 2010, pg. 620-629.

⁴ Strauss, William. "How a low-tech renewable solid fuel is an important component of the pathway to a more decarbonized future: Wood Pellets as a Substitute for Coal in Power Generation." FutureMetrics LLC, September 16, 2017. Online at: http://www.futuremetrics.info/wp-content/uploads/2017/09/The_Benefits_of_Baseload_Low_Carbon_Electricity_Generation_by_FutureMetrics.pdf

⁵ Drax Group, Sustainability Reporting, 2017. Online at: <https://www.drax.com/sustainability/sustainability-reporting/>

⁶ Beagle, E. and E. Belmont. "Technoeconomic assessment of beetle kill biomass co-firing in existing coal fired power plants in the Western United States." *Energy Policy*, Volume 97, October 2016, Pg. 429-438.

⁷ Idaho National Laboratory and Pacific Northwest National Laboratory. "Logistics, Costs, and GHG Impacts of Utility-Scale Cofiring with 20% Biomass." June 2013. Online at: https://www.pnnl.gov/main/publications/external/technical_reports/PNNL-23492.pdf

It is possible to achieve emissions reduction benefits with minimal or no modifications to coal plant boilers. According to a feasibility study of direct biomass co-firing published in the International Journal of Environmental Research, processed biomass can be mixed with coal just before entering the pulverizer with the amount of biomass adjusted for the desired co-firing rate. Crucially, in this process, there is no need for specialized burners or “any fundamental change in the conventional fuel delivery system.”⁸

B. EPA Should Recognize Utilization of Woody Biomass as an Emission Reduction Strategy as it Develops GHG Emissions Guidelines for EGUs

The utilization of biomass fuel in existing EGUs can become a large-scale, reliable, and low-carbon source of electricity in the United States. In particular, conversion and co-firing with woody biomass provides a strategy to meet GHG emissions obligations at existing EGUs. Achieving these benefits will require EPA to clarify the GHG emission accounting for biomass and recognize that co-firing with woody biomass is a system of emission reduction – either as BSER or as a compliance option for individual units.

1. EPA Should Provide a Clear Statement on the Carbon Benefits of Biogenic Carbon Sources

As EPA has recently recognized, by “providing certainty for the treatment of biomass throughout the Agency’s permitting decisions, the use of biomass energy will be bolstered, to the benefit not only to the forest products industry but the environment as well, while furthering the Administration’s goal of energy dominance.”⁹ In considering its position on the treatment of biomass, it is incumbent on EPA to recognize there are important distinctions between carbon emissions from fossil and biogenic sources that have implications for understanding biogenic emissions from stationary sources. Enviva strongly encourages EPA to adopt a clear approach to carbon accounting that recognizes the distinction between biogenic and fossil carbon sources and treats sustainably harvested biomass as carbon beneficial.

Both fossil fuels and woody biomass emit carbon at the point of power generation. However, the utilization of woody biomass can deliver significant carbon savings at the point of power generation because of important distinctions between the carbon cycle of fossil versus biogenic fuels. Fossil fuels introduce carbon into the atmosphere that was previously stored underground and separated from the climate system, whereas biogenic carbon sources release the carbon from organic matter rather than liberating new carbon from stored fossil fuels. Biogenic carbon is part of a cycle whereby carbon is absorbed by the woody biomass over the course of its life and then released back into the atmosphere when burned for energy to be reabsorbed by existing tree stands. Biomass sourced from working forests with stable or increasing carbon stocks acts as a net carbon sink, providing immediate and clearly recognizable greenhouse gas benefits when used as a feedstock. Like wind and solar energy, utilization of biomass from these forests can be considered carbon neutral because any emissions from its combustion are offset by sequestration during forest regrowth.

Monitoring and verification requirements for biomass feedstocks can be met using practical and measurable sustainability standards. In fact, a number of domestic and international independent programs exist

⁸ Amirabedin, E. and D. McIlveen-Wright. “A Feasibility Study of Co-Firing Biomass in the Thermal Power Plant at Soma in order to Reduce Emissions: an Exergy Approach.” *Int. J. Environ. Res.*, 7(1): 139-154, Winter 2013.

⁹ Pruitt, Scott. “Re: Policy Update on EPA Programmatic Treatment of Biomass and the Forest Products Industry.” February 13, 2018.

that can be used to appraise, scrutinize, and validate the sustainability and carbon benefits of commercial forests and their supply chains.

Were EPA to recognize the distinction between biogenic and fossil carbon sources it would be consistent with and satisfy the recent Congressional mandate to “establish clear and simple policies for the use of forest biomass as an energy solution” that “reflect the carbon-neutrality of forest bioenergy and recognize biomass as a renewable energy source.”¹⁰

Enviva has done extensive work to establish forest biomass as a carbon beneficial, renewable energy source, and looks forward to serving as a resource as the Agency takes steps to implement this requirement. Enviva encourages EPA to provide clear direction on the carbon accounting for biomass and recognize that sustainably sourced biomass derived from forests with stable or increasing carbon stocks as carbon beneficial.

2. Biomass co-firing is a strategy that can be implemented at the existing EGU to reduce GHG emissions and improve the effective heat rate of the unit

As explained above, because woody biomass is a low carbon, renewable fuel, it can be co-fired with coal at existing EGUs as a strategy to reduce the GHG emission profile at the source. As EPA considers “all technologies and practices that may be implemented to improve heat rate,”¹¹ it should consider biomass co-firing. Heat rate improvements are changes implemented at an EGU that increase the efficiency with which the EGU converts fuel energy to electric energy. The more efficiently an EGU operates, the lower its heat rate will be. An EGU with a lower heat rate will consume less fuel per kWh generated and emit lower amounts of GHG and other air pollutants per kWh generated as compared to a less efficient unit.

Co-firing with woody biomass achieves the same effect as changes implemented at an EGU that increase the efficiency with which the EGU converts fossil fuel energy to electric energy. The addition of wood biomass as a feedstock to the fuel stream allows for the EGU to reduce the amount of coal needed to produce the same amount of electricity. When supplementing coal with low-carbon biomass, the additional biomass fuel allows for the same amount of electricity to be produced with fewer GHG emissions. Co-firing with woody biomass can be considered to improve the heat rate and efficiency of the unit in terms of the amount of fossil fuel energy input when the heat rate is calculated using the amount of fossil energy required to generate one kilowatt hour of electricity.

As EPA recognizes, adjusting fuel quality is an appropriate strategy for improving an EGU’s heat rate.¹² Co-firing with woody biomass should be considered consistent with this recognition. By co-firing with woody biomass, an existing EGU is supplementing its existing fuel with one of comparable heat content to achieve improved heat rate and reduced emissions. Coal will still remain the predominant fuel source and only minor adjustments to the existing EGU would be necessary.

¹⁰ Consolidated Appropriations Act, 2017, Pub. Law 115-31 Stat. 501

¹¹ ANPRM at 61,514.

¹² *Id.* at 61,513.

3. EPA Should Consider Biomass Co-Firing in its Evaluation of Best Systems of Emissions Reduction

In this ANPRM, EPA solicits comment on the Best System of Emission Reduction (BSER) under the statutory interpretation contained in the proposed repeal of the CPP and on what systems of emission reduction may be available and appropriate given this interpretation.

In the proposed repeal of the CPP, EPA interprets the phrase “‘through the application of the best system of emission reduction’ as requiring that the BSER be something that can be *applied to* or *at* the source and not something that the source’s owner or operator can implement *on behalf of* the source at another location.”¹³ This interpretation of Section 111 of the Clean Air Act (CAA) is contrary to that which is contained in the CPP as it was finalized in 2015: as a system-wide concept, with the system being the infrastructure of the electricity generation network within each state, instead of what is contained within the fence-line of the regulated source.

While there is no distinct statutory definition of BSER, the phrase is included in the definition of “standard of performance” for new sources in Section 111(b): “The term ‘standard of performance’ means a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.”¹⁴ “Standard of performance” applies to an individual facility and is based on this adequately demonstrated “best system of emission reduction” that ensures continuous reductions. Under Section 111(d), states may set a “standard of performance” for an existing source “to which a Section 111(b) standard would apply if such existing source were a new source.” Specifically, EPA’s role under Section 111(d)(1) is to develop a procedure or guideline for states to establish standards of performance for existing sources, the cornerstone being an emission guideline reflecting BSER.

Such emission guidelines should include achievable emission limits that have been adequately demonstrated. From here, EPA examines emission reduction strategies and determines what is considered best based on cost, health and environmental impacts, and energy requirements. As EPA develops an emissions guideline for states regarding existing EGUs, Enviva proposes the inclusion of woody biomass, as it is a low-carbon, drop-in fuel that can be utilized with coal.

The feasibility of biomass utilization with coal at existing EGUs has been more than adequately demonstrated globally, particularly in the UK and the EU. This is most prominently demonstrated by Drax’s success in the UK as noted above. Furthermore, the Netherlands is moving ahead with several large co-firing projects, most notably a biomass co-firing project at RWE’s Amer Station that is scheduled to come online this month (February 2018).¹⁵ Similar opportunities are available here in the U.S., and at a reasonable cost. In many instances, co-firing biomass may not require major modifications at the plant and minimally impacts the energy needs of the

¹³ 82 Fed. Reg. 48,039.

¹⁴ 42 U.S.C. § 7411(a)(1).

¹⁵ Canadian Biomass, Wood pellets co-firing to resume in the Netherlands, Feb. 7, 2018, <https://www.canadianbiomassmagazine.ca/pellets/wood-pellet-co-firing-to-resume-in-the-netherlands-6709>

facility.¹⁶ The addition of woody biomass has positive environmental impacts, as biogenic carbon does not release new CO₂ into the atmosphere, and has reduced emissions of conventional pollutants as compared to coal.

In short, as discussed in detail throughout these comments, co-firing coal with woody biomass is a straightforward, feasible technology that allows for the continued resilience and employment benefits of coal to be maintained while simultaneously reducing GHG emissions from EGUs. Importantly, in keeping with EPA's proposed interpretation of the statute, it can be implemented without significant modification to the plant. Enviva urges EPA to include the benefits of biomass co-firing in developing the Best System of Emissions Reduction.

4. *EPA Should Provide States With Clear Guidance and Direction On The Inclusion of Biomass Utilization in State Plans*

EPA also seeks information on systems of emissions reduction that may not meet the criteria for consideration in the BSER.¹⁷ Should EPA decide that biomass co-firing does not merit inclusion in the BSER, EPA should state clearly that biomass utilization is a viable compliance pathway for individual sources and put forward a reasonable and commercially practical framework for integrating biomass utilization into the compliance framework. This approach could function particularly well in the context of flexible state implementation plans that lay out unit-by-unit standards taking into account the circumstances specific to each boiler.¹⁸

In order for states to incorporate biomass utilization into their state plans, EPA needs to provide states with a clear pathway for how to do so. The final CPP permitted states to use biomass as a compliance option; providing that "qualified biomass" can be eligible for inclusion in state plans.¹⁹ "Qualified biomass" was defined under the final CPP as "a biomass feedstock that is demonstrated as a method to control increases of CO₂ levels in the atmosphere."²⁰ The CPP required state plans including biomass to ensure that they contained adequate monitoring and verification procedures.²¹ When read in combination with EPA's comments regarding the potential inclusion of biomass from the final rule preamble, the path forward for states was far from clear.²²

This approach, if adopted again, would create confusion for biomass producers and states already leveraging their natural resources and, most importantly, miss a major economic and environmental opportunity. The solution forward is two-fold. First, as discussed above, EPA must put forth a clear statement on accounting for biogenic sources of carbon. Second, EPA must put forward a reasonable and commercially practical regulatory view on integrating biomass utilization into the compliance framework.

¹⁶ Amirabedin *et al*, *supra*.

¹⁷ ANPRM at 61,516-17.

¹⁸ *Id.* at 61,511.

¹⁹ Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units Final Rule, 80 Fed. Reg. 64,662, 64,755-56 (October 23, 2015). Online at: <https://www.gpo.gov/fdsys/pkg/FR-2015-10-23/pdf/2015-22842.pdf>

²⁰ *Id.* at 64,961.

²¹ *Id.* at 64,850.

²² Enviva Comments on EPA's Proposed Modeling Trading Rules, Docket No. EPA-HQ-OAR-2015-0199, available at <https://www.regulations.gov/document?D=EPA-HQ-OAR-2015-0199-1999>.

C. Biomass Utilization is a Key Tool to Ensure Grid Reliability

A key challenge for EPA will be to develop a GHG emission guideline for existing EGUs that does not result in challenges for the reliability of the electricity grid. Inclusion of woody biomass co-firing can support reductions of GHG emissions from baseload coal-fired power plants without compromising the reliability of the electrical grid.

A criticism of EPA's Clean Power Plan was its potential detrimental impact on the reliability of the electric grid. For example, following EPA's publication of the final rule, the Electric Reliability Council of Texas (ERCOT) concluded that the Clean Power Plan could lead to the retirement of 4000 MW of coal-fired capacity in the state and that, depending on the timing of these retirements, they could result in localized reliability issues.²³ Moreover, recently the Administration has taken steps to recognize the need for a reliable and resilient electricity system and the critical role of baseload power generation sources.²⁴

Woody biomass is uniquely qualified as a domestic renewable fuel capable of being utilized at existing coal-fired EGUs and providing large-scale reliable and resilient baseload power to the grid. By encouraging existing coal-fired power plants to utilize woody biomass to reduce their GHG emissions rate, EPA would be providing another tool for existing units to comply with any emission limitations. This will help to avoid localized reliability concerns that could result from coal-fired plant retirements.

D. There are Numerous Environmental and Societal Benefits Associated with Utilizing Biomass at Existing Coal-Fired Electricity Generating Units

In addition to serving as a strategy for reducing GHG emissions from existing EGUs, utilizing woody biomass encourages sustainable forest management practices and supports local markets and economies related to forest resources. Recognizing woody biomass in an emission guideline for GHG emissions from existing EGUs offers a key vehicle to promote these benefits.

1. Reduced Emissions of Conventional Pollutants

In addition to reducing carbon emissions, co-firing with woody biomass reduces emissions of conventional pollutants. On an energy content basis, woody biomass has significantly lower levels of sulfur, nitrogen, ash, and mercury than coal. Therefore, the higher percentage of woody biomass utilized, the fewer emissions of other pollutants.²⁵

²³ Electric Reliability Council of Texas, ERCOT Analysis of the Impacts of the Clean Power Plan: Final Rule Update 6, 11 (2015), http://www.ercot.com/content/news/presentations/2015/ERCOT_Analysis_of_the_Impacts_of_the_Clean_Power_Plan-Final_.pdf

²⁴ Grid Resiliency Pricing Rule, 82 Fed. Reg. 46940 (October 10, 2017). Online at: <https://www.federalregister.gov/documents/2017/10/10/2017-21396/grid-resiliency-pricing-rule>; See also, "Staff Report to the Secretary on Electricity Markets and Reliability." Department of Energy, August 2017. Online at: https://energy.gov/sites/prod/files/2017/08/f36/Staff%20Report%20on%20Electricity%20Markets%20and%20Reliability_0.pdf

²⁵ Bates, Judith, et al. "Minimising greenhouse gas emissions from biomass energy generation." UK Environment Agency, April 2009. Online at: http://www.globalbioenergy.org/uploads/media/0904_Environment_Agency_-_Minimising_greenhouse_gas_emissions_from_biomass_energy_generation.pdf.

2. Forest Health and Forest Carbon Stocks

The production of biomass energy fuels in the U.S. is based on the same forest products landscape already in place to support a number of substantially larger commercial industries, such as saw timber, construction materials, and commercial packaging. In fact, because biomass energy feedstocks draw from the lowest value byproducts in the commercial forestry supply chain, the development of biomass energy markets can provide important outlets for otherwise unusable or underutilized materials that would be left in the forest to decay or be burned on-site. Furthermore, since one of the strongest drivers of deforestation on privately owned lands is conversion for alternate use such as agriculture or commercial development, the emergence of additional markets provides further incentive to landowners to keep their forests replanted and sustainably managed. A large body of research demonstrates that biomass energy markets lead to more forests and healthier forests overall.

The U.S. Forest Service acknowledges the role that markets play in supporting forest health, recognizing that increased demand for wood products will lead to increased investments in forestry, helping to prevent forest loss and thereby also preventing carbon stock loss. In fact, from the early 1950s to the late 1990s in the U.S. nationally, demand for softwood forest products almost doubled and population growth and commercial development spiked rapidly, yet during this same time period carbon stocks remained constant.²⁶ In the U.S. South specifically, overall timber demand increased by 57% and softwood timber demand increased by 98% between 1953 and 2015. During this same time, forest inventory increased by 108% from 142 to 296 billion cubic feet.²⁷

Further, a recent study from the U.S. Forest Service Southern Research Station found that an increase in demand specifically for bioenergy would result in an increase in both forest inventory and forested timberland area in the U.S. South.²⁸ The United States Department of Agriculture has also recognized the many benefits of the biomass industry, which include increasing forested area, reducing greenhouse gas emissions, and improving U.S. forest management practices.²⁹ Researchers from Duke University and North Carolina State University also found that increased demand for wood pellets elicits a positive forest market response, resulting in increased forest area and annual gains in forest carbon.³⁰ Additionally, both the International Energy Agency and the International Panel on Climate Change agree that biomass production can lead to both sustainable forest management and increased carbon storage.³¹

²⁶ Miner, Reid, Robert C. Abt, Jim L. Bowyer, et al. "Forest Carbon Accounting Considerations in US Bioenergy Policy." *Journal of Forestry*, 112 (6): 595-96, November 2014.

²⁷ Jefferies, Hannah M. and Tracy Leslie. "Historical Perspective on the Relationship between Demand and Forest Productivity in the US South." Forest2Market, Inc., July 2017. Online at: https://www.forest2market.com/hubfs/2016_Website/Documents/20170726_Forest2Market_Historical_Perspective_US_South.pdf?t=1519223939422

²⁸ Abt, Karen Lee, et al. "Effect of Policies on Pellet Production and Forests in the U.S. South." United States Department of Agriculture, US Forest Service Southern Research Station, Dec. 2014. Online at: http://www.srs.fs.usda.gov/pubs/gtr/gtr_srs202.pdf.

²⁹ Letter from Thomas J. Vilsack, former US Secretary of Agriculture, to Amber Rudd, MP, former UK Secretary of State for Energy and Climate Change, Mar. 28, 2016.

³⁰ Galik, Christopher S. and Robert C. Abt. "Sustainability guidelines and forest market response: an assessment of European Union pellet demand in the southeastern United States." *Global Change Biology Bioenergy*, May 27, 2015.

³¹ Miner et al., *supra*

Despite population growth and increased urban development, forest inventory continues to increase each year. In fact, standing forest inventory in the U.S. South has grown by over 100% since the 1950s.³² Over the last 15 years, during which time biomass for energy demand appeared in the marketplace, forest inventory in the U.S. South has increased by almost 1.2 billion tons. As the acreage and inventory in U.S. forestland increase, so do the carbon stocks in those forests.³³ These trends demonstrate that biomass is a sustainable energy source that can help support forest landowners and forest health. In short, the empirical data confirm what models have predicted all along: there is a clear correlation between strong markets, healthy forests, and increasing carbon stocks—all of which are essential components of any long-term energy and climate strategy.

On public lands that are increasingly prone to devastating wildfires, biomass production, particularly converting the byproducts of forest restoration efforts, can be a critical component of sustainable forestry. The U.S. Department of Agriculture Forest Service found that “by utilizing woody byproducts from restoration treatments, [Collaborative Forest Landscape Restoration Program] projects can help offset treatment costs and generate economic benefits for the community.”³⁴ Leaving untouched lower-value wood such as low-grade fiber, limbs, and industry byproduct ignores the lifecycle sequestration benefits of the wood. Because these materials at one point aided in sequestering carbon, they can be converted to energy with a low lifecycle emissions footprint. Clearing forests of small-diameter tops, limbs and other forest harvest residues as well as forest restoration materials also promotes forest health and reduces risks of catastrophic fires. The recent fires in California are case studies in how quickly the fires can spread with considerable forest debris.³⁵ Creating an economic incentive for the productive use of biomass not only stimulates rural economies in the timber business but increases the value of the forest itself.

3. *Revitalizing Rural Economies*

Further development of woody biomass markets also supports the work of the Trump Administration’s Agriculture and Rural Prosperity Task Force. Secretary Perdue and other leaders of this Task Force have acknowledged the role that forestry and forest land ownership play as a key economic driver in rural America and have pledged to support forestry through a variety of USDA programs. Additional markets for forest products, such as biomass, increase the value of forest land and provide landowners additional opportunities for growth and prosperity, while also preserving the health of the forests they own.

Increasing biomass usage will also help support those in America’s heartland who have been severely impacted by coal plant and mine closures. This industry will provide a lifeline for workers in the coal industry, and will create innovative jobs and enduring economic opportunities in rural economies across the country that supply the biomass. Developing a viable compliance pathway for existing coal facilities will increase the lifespans of many

³² Jefferies, Hannah M. and Tracy Leslie. “Historical Perspective on the Relationship between Demand and Forest Productivity in the US South.” Forest2Market, Inc., July 2017. Online at: https://www.forest2market.com/hubfs/2016_Website/Documents/20170726_Forest2Market_Historical_Perspective_US_South.pdf?t=1519223939422

³³ “Wood Supply Market Trends in the US South: 1995-2015.” Forest2Market, November 19, 2015. Online at: https://www.forest2market.com/hubfs/2016_Website/Documents/20151119_Forest2Market_USSouthWoodSupplyTrends.pdf.

³⁴ “Collaborative Forest Landscape Restoration Program 5-Year Report, FY 2010-2014.” US Forest Service, April, 2015. Online at: https://www.fs.fed.us/restoration/documents/cflrp/CFLRP_5-YearReport.pdf

³⁵ Page-Dumroese, Deborah S. et al. “Methods to Reduce Forest Residue Volume after Timber Harvesting and Produce Black Carbon, *Scientifica* Volume 2017.

existing coal-fired units and generate significant investment in these sites and their surrounding communities as their environmental footprint is improved. The ripple effects of such investment are many – there are construction and maintenance jobs, security for plant workers, continued activity in surrounding mines, newly trafficked supply routes, and recurring procurement revenue flows. Increasing biomass production will breathe new life into rural timber and milling markets where many projects have been put on hold.³⁶

E. EPA Should Ensure that the New Source Review Program Does Not Discourage Existing EGUs From Employing Strategies to Reduce GHG Emissions

EPA also requests comment on the potential interaction of emissions guidelines with the New Source Review (NSR) Program, including the scenarios in which EGUs are subject to NSR, and flexibilities EPA can provide to enable EGU emissions reduction projects.³⁷

As a preconstruction permitting program designed to limit emissions from major sources of air pollution, NSR has the potential to affect every major EGU in the United States, as well as virtually every manufacturing plant. The requirements for NSR differ depending on where the source is located, but the burdens are similar. If the source is located in an area meeting a National Ambient Air Quality Standard (NAAQS), the prevention of significant deterioration program is intended to allow construction without degrading air quality; if the source at question is in an area not meeting NAAQS, nonattainment-NSR requirements are in place to ensure that progress is still being made to attain the NAAQS.

As EPA recognizes, the NSR program is in need of clarification and reform overall.³⁸ Over the years, EPA and others have implemented and applied the NSR program in a manner that often discourages operators of existing sources from implementing efficiency upgrades or operational changes, maintenance, and repairs that would assist in emission reductions.

The lack of certainty in the NSR program has led to legal challenges and a lack of investment, as any physical or operational change at an existing source could be subject to second guessing and enforcement by EPA and third parties. The program's unpredictability regarding what constitutes an emissions increase hampers technological innovation and improvements, consequentially resulting in fewer improvements and continued reliance on older, less efficient technology at existing sources.

Enviva encourages EPA to consider the impact of NSR on projects intended to reduce emissions and/or improve efficiency and make accommodations for these projects to be implemented without fear of post-project litigation or NSR enforcement. Improving the predictability as to how NSR will be implemented, particularly ensuring that technological advancements that improve efficiencies or reduce GHGs are not jeopardized by the NSR program, would provide existing sources the incentive to reduce emissions through efficiency, co-firing, or other measures.

³⁶ *Id.*

³⁷ ANPRM at 61,519.

³⁸ Pruitt, E. Scott, Memo: "New Source Review Preconstruction Permitting Requirements: Enforceability and Use of the Actual-to-Projected-Actual Applicability Test in Determining Major Modification Applicability," Dec. 7, 2017. https://www.epa.gov/sites/production/files/2017-12/documents/nsr_policy_memo.12.7.17.pdf

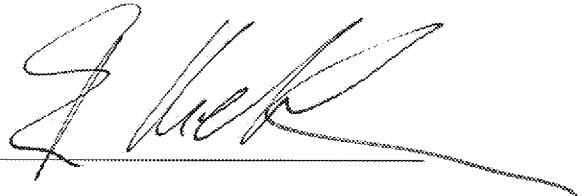
III. CONCLUSION

Utilization of woody biomass, in conjunction with a policy distinguishing biogenic and fossil carbon sources, provides substantial GHG emission reduction benefits and should be considered as a means for achieving lower emission rates under an emission guideline for GHG reductions from existing EGUs. Achieving this will require a clear statement from EPA either by inclusion of biomass co-firing in the BSER determination or recognition as a strategy for meeting the emission guideline. Consequently, we hope that as EPA designs the emission guideline, regardless of the rule's overall structure, it will recognize and encourage the utilization of biomass.

Enviva Holdings, LP

By: Enviva Holdings GP, LLC,
as its sole general partner

By:

A handwritten signature in black ink, appearing to read 'T. Meth', is written over a horizontal line.

Name: Thomas Meth
Title: Executive Vice President, Sales and Marketing

Message

From: Sasha Mackler [sasha.mackler@envivabiomass.com]
Sent: 4/17/2018 4:23:44 PM
To: Harvey, Reid [Harvey.Reid@epa.gov]; Dunham, Sarah [Dunham.Sarah@epa.gov]; Culligan, Kevin [Culligan.Kevin@epa.gov]
Subject: RE: Enviva biomass follow-up

Hi Reid --

That sounds great. Just let us know.

Thanks,
Sasha

Sasha Mackler
Market Development Director, Americas
Enviva
+1 (240) 800 5703 (direct line)
cell (202) 321 5585

From: Harvey, Reid [mailto:Harvey.Reid@epa.gov]
Sent: Tuesday, April 17, 2018 8:53 AM
To: Sasha Mackler <sasha.mackler@envivabiomass.com>; Dunham, Sarah <Dunham.Sarah@epa.gov>; Culligan, Kevin <Culligan.Kevin@epa.gov>
Subject: RE: Enviva biomass follow-up

Thanks for your note Sasha. We certainly appreciate your offer and we can stay in touch with you as we proceed.

Hope you are doing well.

Best,
Reid

Reid Harvey
Director, Clean Air Markets Division
Office of Atmospheric Programs, OAR
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., NW (6204J)
Washington, DC 20460

202-343-9429

From: Sasha Mackler [mailto:sasha.mackler@envivabiomass.com]
Sent: Monday, April 16, 2018 2:37 PM
To: Dunham, Sarah <Dunham.Sarah@epa.gov>; Harvey, Reid <Harvey.Reid@epa.gov>; Culligan, Kevin

<Culligan.Kevin@epa.gov>

Subject: Enviva biomass follow-up

Sarah, Reid, and Kevin –

Just following up on our recent conversations. As I've mentioned, Enviva would be happy to provide further information on either (1) the biogenic CO2 accounting issues associated with woody biomass energy or (2) the commercial aspects related to regulatory flexibilities for CO2 reductions at existing coal-fired EGUs.

Looking forward to further discussions.

All the best,

Sasha



Sasha Mackler

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Message

From: Sasha Mackler [sasha.mackler@envivabiomass.com]
Sent: 4/16/2018 6:36:44 PM
To: Dunham, Sarah [Dunham.Sarah@epa.gov]; Harvey, Reid [Harvey.Reid@epa.gov]; Culligan, Kevin [Culligan.Kevin@epa.gov]
Subject: Enviva biomass follow-up

Sarah, Reid, and Kevin –

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Looking forward to further discussions.

All the best,

Sasha



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Market Development Director, Americas

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Message

From: POLITICO Pro Energy [politicoemail@politicopro.com]
Sent: 3/21/2019 10:02:02 AM
To: Dunham, Sarah [Dunham.Sarah@epa.gov]
Subject: Morning Energy, presented by Faraday Grid: The changing hands of formaldehyde safety — FERC meets on transmission policy — Tonko's climate principles

[View online version](#)

MORNINGENERGY

03/21/2019 06:01 AM EDT

By KELSEY TAMBORRINO (ktamborrino@politico.com; [@kelseytam](https://twitter.com/kelseytam))

With help from Darius Dixon and Anthony Adragna

QUICK FIX

— **EPA's announcement that it will add formaldehyde** to its priority list under the Toxic Substances Control Act puts the verdict of the chemical's health risks in the hands of a former industry official at the same time Trump officials are blocking the release of another assessment that raised significant worries about the substance.

— **FERC holds its monthly meeting today**, and the commission's transmission policies will be in the forefront, while the departure of a controversial staffer plays out in the background.

— **Democratic Rep. Paul Tonko will speak today** on climate change in Baltimore and unveil a slate of goals to guide the eventual legislation to address the issue.

**** A message from Faraday Grid:** The evolution of smart cities is needed to address climate change while delivering sustainable prosperity to everyone. Approximately 48.7 million people live in places

across the U.S. that have committed to 100% renewable energy. [Learn how](#) Faraday Grid can speed up America's decarbonization journey by helping to enable smart cities. **

GOOD MORNING! IT'S THURSDAY. I'm your host, Kelsey Tamborrino. Green Plains Inc.'s Devin Mogler was the first to name the Oregon Ducks as the team that in 1939 won the inaugural collegiate basketball championship. For today: Which current senators were born to American parents abroad? Send your tips, energy gossip and comments to ktamborrino@politico.com. Follow us on Twitter [@kelseytam](#), [@Morning_Energy](#) and [@POLITICOPro](#).

DRIVING THE DAY

THE CHANGING HANDS OF FORMALDEHYDE SAFETY: EPA's move to add formaldehyde to its priority list for evaluation under TSCA would launch a lengthy review process crafted by a former top chemicals industry expert that public health advocates say emphasizes industry-funded research over independent studies, Pro's Annie Snider reports.

The move drew alarm from those who fear the new review is aimed at undercutting the findings of a suppressed assessment by EPA's independent scientists that links the chemical with cancer at extremely low levels of exposure — a finding fiercely opposed by industry.

"The reason this is happening now, I believe, is so that the assessment can be taken out of the career science office and the career scientists that had been overseeing it to date," said Richard Denison, lead senior scientist at the Environmental Defense Fund, "and put it into the hands of a conflicted political appointee who can work her magic to make risks go away."

At the center of the Trump administration's work on formaldehyde are two political officials who came to EPA directly from chemical industry groups with a stake in the fight over formaldehyde's dangers. David Dunlap, the top political official at EPA's Office of Research and Development, previously served as a top chemicals expert for Koch Industries, whose subsidiary Georgia-Pacific is one of the country's largest makers of formaldehyde. The other, Nancy Beck, was a top expert for the American Chemistry Council before becoming the No. 2 political official in EPA's chemical safety office. [Read more.](#)

WORD FROM THE AGENCIES

RUNDOWN OF TODAY'S FERC MEETING: Today is one of the rare FERC meetings where there isn't a single rulemaking on the agenda. Still, there ought to be plenty to chew over given plans to launch two new dockets devoted to reviewing the agency's transmission rates and incentives policy. The effort piggybacks off of Chairman Neil Chatterjee's announcement at CERAWEEK last week that the grid needed to be modernized to cope with an influx of renewables and natural gas while

remaining reliable and resilient to disruption. ME's expecting a staff presentation. No natural gas certifications are on the agenda.

As much as some FERC nerds will want to keep the focus on transmission policy, chief of staff Anthony Pugliese's departure is likely to be the gossip on most people's lips today. The controversial ex-aide told POLITICO on Wednesday that he'd been eyeing the exits since former Chairman Kevin McIntyre died in January. But it was confusing that the agency issued a statement about his resignation five days after it took effect and only seemingly after Pugliese tweeted about it. FERC rumor mill is working overtime this week.

If you go: The meeting starts at 10 a.m. at FERC headquarters.

LET'S TALK ABOUT THE PROCESS: The Energy Department is holding an all-day public meeting today about its proposal to revamp its so-called process rule, which governs how the agency crafts energy efficiency regulations. The proposal, released last month, would be the first changes to the rule in two decades, but it sets up a system that avoids creating new efficiency standards if they won't save consumers at least half a "quad" over 30 years (for reference, a quad was about 1 percent of U.S. energy consumption in 2017).

Earlier this month, DOE's top efficiency official, Dan Simmons, told lawmakers that the proposal would prioritize "the rules that are primed to save consumers the most money." The meeting is scheduled to run from 9 a.m. to 4:30 p.m. Expect efficiency advocates to come out swinging.

ON THE HILL

TONKO'S CLIMATE PRINCIPLES: Tonko, the chairman of the Energy and Commerce Environment and Climate Change Subcommittee, says he wants to introduce a bill that would put a price on carbon and bring net U.S. emissions to zero by mid-century, Pro's Anthony Adragna reports this morning. "Carbon pollution has been free," Tonko said. "It's time to set a price onto that carbon pollution."

The New York Democrat will today lay out nine principles, including the need to ensure a "just and equitable" transition that avoids "disproportionate burdens" on low-income households and displaced workers. Tonko said those nine targets came together following 18 months of discussions and with input from climate scientists, economists, businesses, labor groups, environmental advocates, utilities and think tanks.

— **Tonko will formally unveil** the principles at the Climate Leadership Summit at 8:30 a.m. today in Baltimore. Watch his remarks here.



DEMS QUESTION WEHRUM'S ROLE: Democratic lawmakers are pointing to legal logic included in an EPA policy memo from December 2017 to suggest air chief Bill Wehrum violated ethics rules, Pro's Zack Colman reports.

The memo on New Source Review permitting shows the agency adopted a novel legal argument previously used by a utility that Wehrum and EPA lawyer David Harlow both worked on at their former firm, Hunton Andrews Kurth.

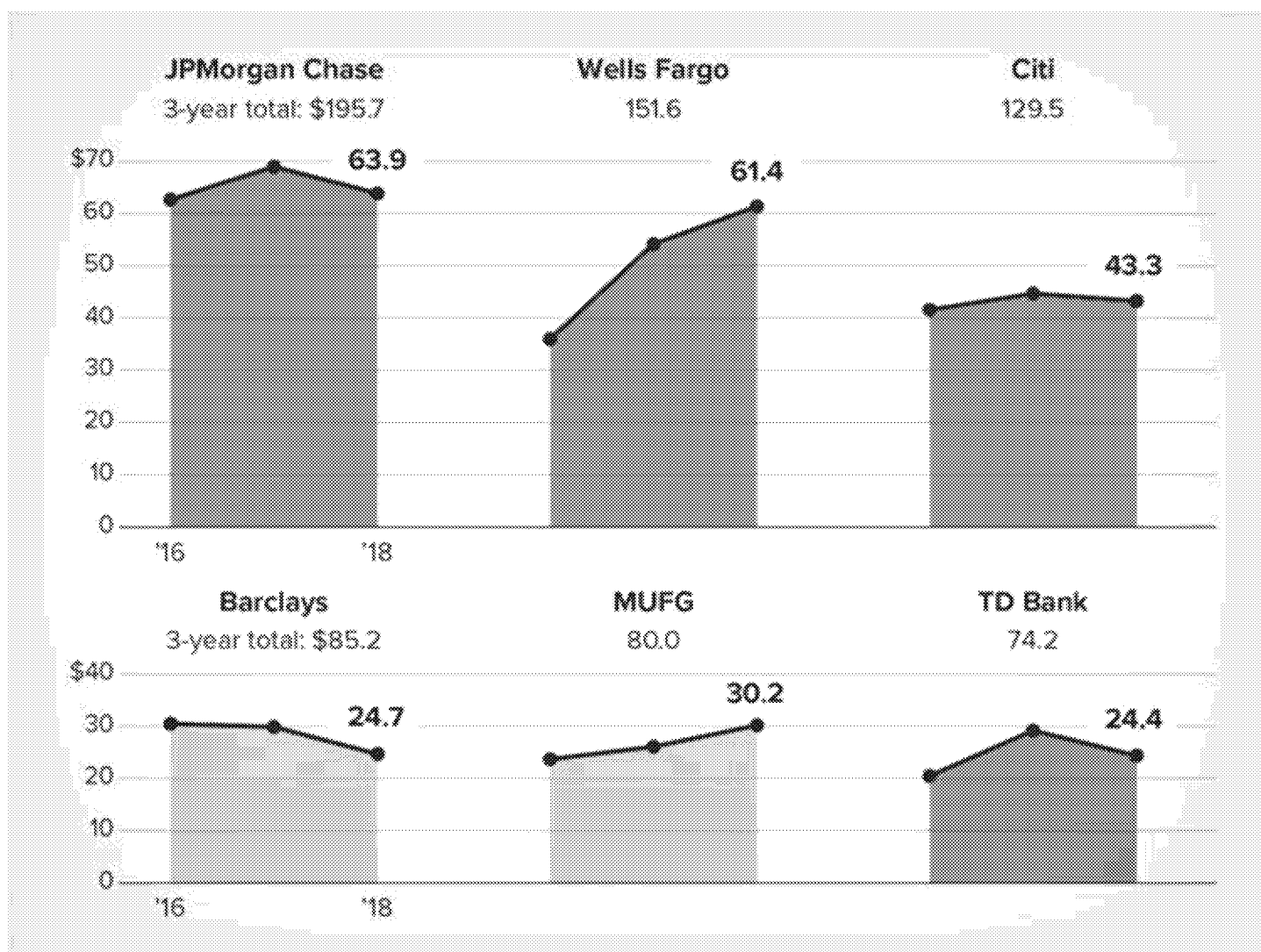
"If this is accurate, an argument advanced only by Hunton lawyers in specific litigation was recently adopted by EPA in a memo whose issuance appears to have been timed to affect the outcome of litigation involving Hunton's current client," Sens. Sheldon Whitehouse and Tom Carper, and Rep. Frank Pallone, wrote to EPA's acting inspector general on Wednesday. Wehrum is prohibited from decisions on particular matters involving former clients in which he or his firm litigated, according to the Democrats.

WATER

IT'LL COST YOU: The U.S. Army is asking the Environmental Working Group for \$290,400 to execute a public records request seeking data from 154 installations where water is contaminated by PFAS. In a letter dated March 12 and reported by the Associated Press, Army senior counsel Paul DeAgostino wrote that the green group's fee waiver request was denied.

"It would take an estimated 6,400 man-hours and cost you (the requester) an estimated \$290,400.00 after the first free 100 pages provided by law to process your request," the letter says. EWG said it filed an administrative appeal of the Army's fee request on Wednesday.

PFAS BILL COMING: Bipartisan Sens. Jeanne Shaheen and Lisa Murkowski, the chairman of the Energy Committee, will announce today their intention to introduce legislation next week, dubbed "the Protecting Military Firefighters from PFAS Act." The bill would require the Defense Department to include blood testing for PFAS as part of routine physicals for military firefighters. A companion bill will be introduced by bipartisan Reps. Donald Norcross and John Katko, ME is told.



View the full DataPoint graphic [here](#). Want to add [DataPoint](#) to your Pro account? [Learn more](#).

IN THE BANK: A [new report](#) from six environmental groups found 33 banks have provided \$1.9 trillion to fossil fuel companies in the three years since the Paris climate agreement was adopted. Pro DataPoint's Patterson Clark and Todd Lindeman break those figures down [here](#).

HOW K STREET EXPLAINS THE GREEN NEW DEAL: Monument Advocacy, a firm representing Shell Oil, wood pellet maker Enviva and several big-name tech companies, shared with ME a memo it sent to its clients Tuesday that outlines Democrats' Green New Deal resolution.

The Monument memo says rather than a single "up or down" vote on the GND, "we expect a longer term — and sometimes grinding — policymaking process with legislative fights breaking out on multiple fronts, in multiple committees." That will come via a variety of bills, each on different aspects of the plan. "[I]n other words, implementation of this concept isn't going to be a straight line," it said.

MOVERS AND SHAKERS

— ClearPath will announce today that it has named three to its advisory board: **William Martin**, former deputy Energy secretary during the Reagan administration; **Elizabeth Stolpe**, who was associate director of the White House Council on Environmental Quality under President George W. Bush; and **Marty Hall**, the former chief of staff at CEQ under Bush.

IT'S MARCH MADNESS: HAVE YOU FILLED OUT YOUR PLAYBOOK POOL BRACKET?

Compete against your friends, Playbookers, top political insiders and VIPs to win great prizes, not to mention some legit bragging rights in our **3rd Annual Playbook Pool College Basketball Bracket Challenge!** Submit your bracket before noon on Thursday, March 21. Governors, senators, House members and mayors, as well as some of the biggest names in politics and media, are already in the game, click [HERE](#) to take them on!

THE GRID

- "Gas-tax hike: A rare big idea with bipartisan backing," [The Wall Street Journal](#).
- "Masto says she's close to a deal to remove plutonium secretly shipped to Southern Nevada," [Reno Gazette Journal](#).
- "Philadelphia Energy Solutions executives depart amid financial woes," [Reuters](#).
- "Trump's top economic adviser still supports carbon tax," [E&E News](#).
- "U.S. crude settles at 4-month high after topping \$60 for first time since November," [CNBC](#).
- "Cleanup underway after fire at Texas petrochemicals facility," [Associated Press](#).

HAPPENING TODAY

- 7:30 a.m. — The Association for Federal Information Resources Management holds "[Cybersecurity Summit: Bridging the Cyber Talent Gap in Government](#)," Arlington, Va.
- 8 a.m. — The Center for a New Economy [discussion](#) on "Black Start: Future of Energy Summit," San Juan, Puerto Rico.

8:30 a.m. — The Center for Climate and Energy Solutions and the Climate Registry hold 2019 Climate Leadership Conference, Baltimore.

9 a.m. — The State Department, the U.S. Agency for International Development, the U.S. Water Partnership, the Aspen Institute, Global Water 2020, and the Global Water Challenge conference on "Call to Action: Supporting Women through Water," 2201 C St. NW.

Noon — The Woodrow Wilson Center's China Environment Forum discussion of "Thirst for Power," focusing on "water-energy confrontations facing our planet," as part of the Environmental Film Festival, 1300 Pennsylvania Ave. NW.

2 p.m. — The National Academy of Sciences discussion on "STEM Workforce Diversity: Where Do We Go From Here?" 2101 Constitution Ave. NW.

THAT'S ALL FOR ME!

**** A message from Faraday Grid:** More than 100 cities in the U.S. are committed to 100% renewable energy. Smart cities consume more power so require a fundamental shift to new energy systems that are more reliable and resilient. Learn how Faraday Grid will change the way we access and use energy in the future to help enable smart cities. ******

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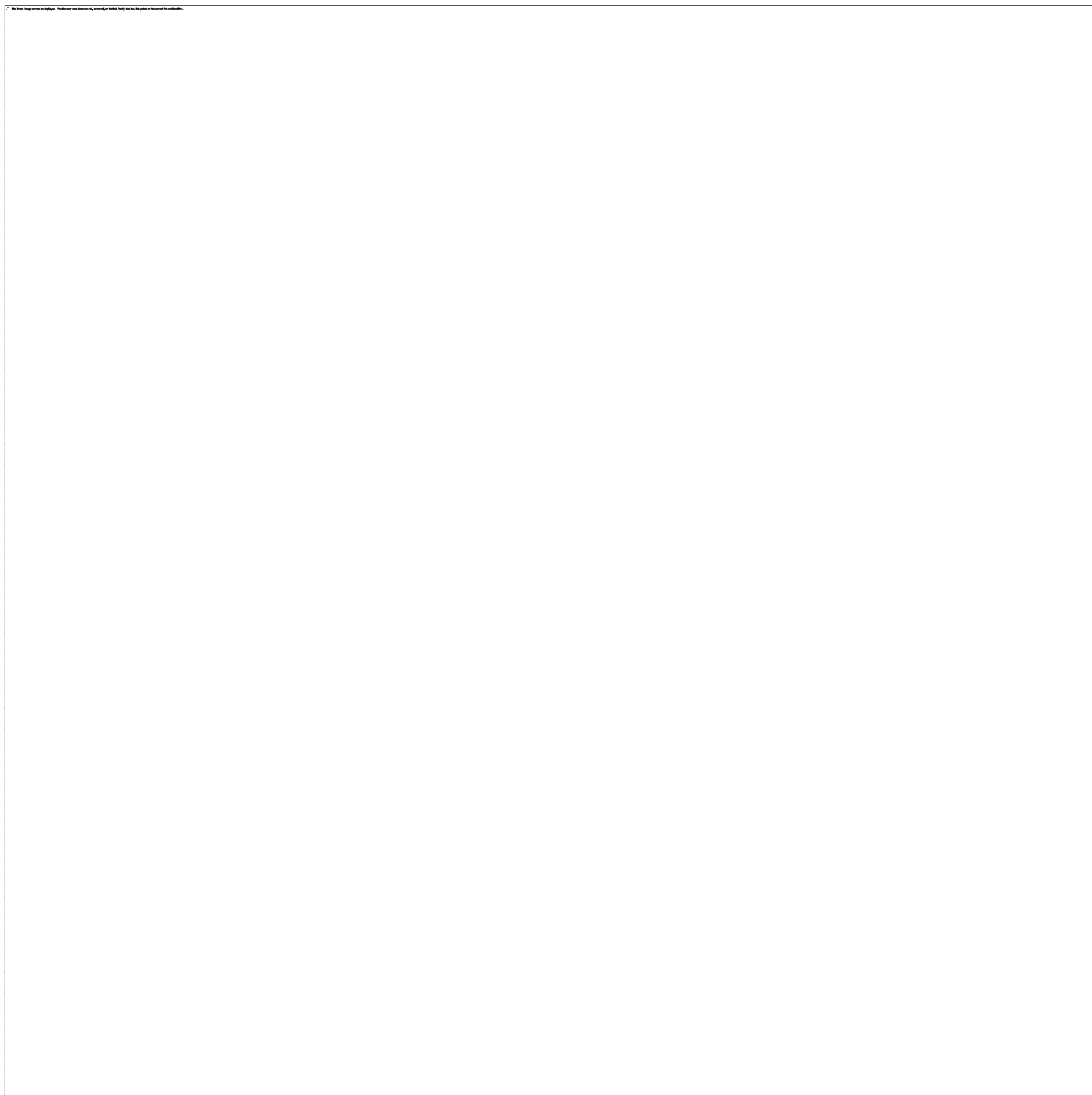
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Message

From: Scott Hale [scotth@infocastincevents.com]
Sent: 12/23/2013 6:14:16 PM
To: McCabe, Janet [McCabe.Janet@epa.gov]
Subject: Network with Key Players in the Power Finance Market at Projects & Money 2014

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Dear Colleague,

Leading project developers, power players, and leading sources of capital will gather once again at Infocast's **Projects & Money 2014** on January 14-16, 2014, in New Orleans to explore the prospects and challenges of building new generation assets and to discuss outlook for the project finance market in 2014.

Projects & Money is the place where the industry's leading figures share their insights and where you can get the latest information about what financial alternatives you can turn to in the market and determine how to get financing for your project.

Don't miss your opportunity to hear from and network with the key players in the power finance market including:

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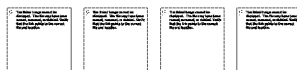
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Message

From: McCabe, Janet [McCabe.Janet@epa.gov]
Sent: 3/6/2016 11:03:02 PM
To: Janet McCabe (janetgmccabe@gmail.com) [janetgmccabe@gmail.com]
Subject: FW: E-folder for Monday, March 15, 2015
Attachments: 03 07 2016 Janet McCabe CCS Briefing.pptx; ATT00001.htm; REGS OS prebrief for Janet, 2.22.16 final.pptx; ATT00002.htm; Supplementary Information on REGS rule elements, 2.22.16 final.docx; ATT00003.htm; CLA 2016 EPA Press Release -03316.docx; ATT00004.htm; Membership webinar 3.2.16.pptx; ATT00005.htm; FW: May 6 meeting request - ICAC; ATT00006.htm; CPP Weekly Check In Agenda 3 7 16.docx; ATT00007.htm; HFC Meetings.pptx; ATT00008.htm; 2016 HFC Overview.docx; ATT00009.htm; Response letter to Mr. Gene Bradley and the incoming letter for AL-16-00....pdf; ATT00010.htm; AL-16-000-0258 Donnelly response_revised_vs3.docx; ATT00011.htm; AL-16-000-0258 Donnelly incoming.pdf; ATT00012.htm; HFC Meeting background 3-4-16.docx; ATT00013.htm; OAR WEEKLY Feb 26.docx; ATT00014.htm

From: Cyran, Carissa
Sent: Saturday, March 5, 2016 8:45 AM
To: McCabe, Janet
Cc: Stewart, Lori
Subject: Fwd: E-folder for Monday, March 15, 2015

Good morning and welcome home!

Below is your schedule for Monday along with a few documents for your review. I will send a follow up email from Sarah that has additional information for the HFC meeting at the White House.

Thanks,

Carissa

Sent from my iPhone

Begin forwarded message:

From: "Cyran, Carissa" <Cyran.Carissa@epa.gov<mailto:Carissa@epa.gov>>
Date: March 4, 2016 at 5:11:41 PM EST
To: "Cyran, Carissa" <Cyran.Carissa@epa.gov<mailto:Carissa@epa.gov>>
Subject: E-folder for Monday, March 15, 2015

8:00 am – 9:00 am	Private Appointment
9:00 am – 9:30 am	HOLD – No Meetings
9:30 am – 10:00 am Participant Code: 234-567	Management Roundtable – 5400 Dial: Personal Phone / Ex. 6 Conference ID: Personal Phone / Ex. 6
10:00 am – 10:30 am Code: 234-567	Scheduling – 5400 Dial: Personal Phone / Ex. 6 ; Conference ID: Personal Phone / Ex. 6 Participant
10:30 am – 11:00 am	One on One with Sarah Dunham – 5400
11:00 am – 12:00 pm Jabber	REGS Rule NPRM, Pre-brief for Options Selection, Part 2 – 5400 Video with your
12:00 pm – 1:00 pm	HOLD – No Meetings
1:00 pm – 2:00 pm 6854	Senior Staff – Alm Conference Room Dial: Personal Phone / Ex. 6 Conference Code: Personal Phone / Ex. 6
1:00 pm – 2:00 pm	HFC Meeting hosted by Brian Deese – White House Situation Room
2:00 pm – 2:30 pm	One on One with William Niebling – 5400
2:30 pm – 3:00 pm	One on One with Steve Page – You will call Steve at Personal Phone / Ex. 6
3:00 pm – 3:30 pm	HOLD – No Meetings

3:30 pm - 4:30 pm CPP Check In - 5400 Dial: Personal Phone / Ex. 6 Participant Code: Personal Phone / Ex. 6
4:30 pm - 6:00 pm HOLD - No meetings
6:00 pm - 6:30 pm Conference Call with Ken Kimmel / EPA on HDV

For your review:

Climate Leadership Awards Announcement for Wednesday, March 9th

Speaking Invitation from ICAC for your consideration (we can discuss this during the scheduling the meeting on Monday if you like)

Draft Hill responses on the Emergency Vehicle Issue (Ben H. discussed these with you)

Internal, deliberative, privileged

**CPP Weekly Update
for Janet McCabe
March 7, 2016**

Ex. 5 Deliberative Process (DP)

*Internal, deliberative, privileged***Attachment A****I. Trainings****Ex. 5 Deliberative Process (DP)****II. Upcoming Meetings/Calls****1. Meetings with States****Ex. 5 Deliberative Process (DP)****2. Related Activities – Regional Office Meetings****Ex. 5 Deliberative Process (DP)****3. Meetings with Stakeholders (HQ + Regions)****a. Stakeholder meetings****Ex. 5 Deliberative Process (DP)****2. 3/10 Enviva (wood pellet producer)/EPA meeting on biomass comments on model rules****Ex. 5 Deliberative Process (DP)**

Internal, deliberative, privileged

- b. Attend and/or speak at external meetings. Upcoming 2016 meetings invitations include:

Ex. 5 Deliberative Process (DP)

Message

From: Maisano, Frank [frank.maisano@bracewell.com]
Sent: 9/21/2020 1:39:29 PM
To: Maisano, Frank [frank.maisano@bracewell.com]
Subject: Sep 21 Bracewell PRG Energy Update: Clean Energy/Climate Week Action/Events; SAFE Supply Chain Report

Friends,

Early launch of the update today as I am on my way to Denver to talk Election 2020 and the environment. Sadly, I have to begin with the late Friday passing Supreme Court Justice Ruth Bader Ginsberg. She was a judicial titan and pop-culture icon, there is no doubt about that. I always remember her relationship with the late conservative justice Antonin Scalia as a model for how we can all work together. Unfortunately, her passing and the ensuing high-stakes politics that will envelop us over the remaining days of this campaign will not reflect any of her/Scalia's common ground. It certainly will shake up an already crazy/tumultuous 2020.

On the sports front, it was a very busy weekend. In the always amazing Tour de France, this year's delayed endurance bike race was decided in the 20th stage, an uphill individual time trial at La Planche des Belles Filles where in which eventual winner Tadej Pogačar stunned the Tour to win the stage time trial, overhauling a 57-second deficit and yellow jersey from Slovenian countryman and friend Primož Roglič on the 36K course. He becomes the first rider to win the overall race, be King of the Mountains and be race's best young rider. The US Open also was incredible with the Winged Foot course as the real winner even though Bryson DeChambeau was the only player to remain under par and brought home the trophy. Stanley Cup Finals also underway on Saturday with the Dallas Stars taking Game 1 from Tampa. Game 2 tonight. And speaking of the Stanley Cup, it also made an appearance on last night's Emmys Show, where Canadian-based show Schitt's Creek, the Eugene/Daniel Levy brilliant Netflix series cleaned up with nine awards including Best Comedy Show.

This is a BIG week for climate. In DC, (but virtual) it is National Clean Energy Week which features a bunch of events on tons of energy subjects and a star-studded speaker line up. It is also Climate Week NYC (also virtual) which includes the UN's sustainability meeting and hundreds of events on every subject you can imagine. Plenty to track this week there.

Because it is climate/clean energy week, the House of Representatives is set to consider energy legislation which includes a package of bills that increase federal investments into clean energy, the electric grid and electric vehicles. The legislation includes the Clean Industrial Technology Act which aims to reduce carbon in the industrial sector and HFC legislation that phases out those GHGs. ClearPath has a great rundown of many of the provisions in the legislation here. House Rules Committee starts at 1:00 p.m.

On the hearing front, the Senate Energy Committee looks at offshore technologies tomorrow featuring EERE's Dan Simmons, BOEM and Equinor while House Resources looks at renewables during the Trump Administration. On Wednesday, Senate Environment looks at ESA and a House Foreign Affairs panel will look at green recovery plans for COVID. Finally, a House Transportation panel looks at Everglades management on Thursday.

Outside of the climate events, the most interesting event is a SAFE forum on Thursday at 2:00 p.m. that will look at a new report that analyzes the strategy behind Chinese leadership in the EV, AV and 5G supply chain and technology, its methods (fair and foul) for cementing that leadership, and the economic and national security risks the United States run if it does not make strident efforts now to compete. Speakers will include Daniel Yergin (who has a new book on the topic) and Rep. Debbie Dingell among others. Speaking of Yergin, he also gets into the topic with Robert Bryce on his recent Power Hungry podcast. The other interesting event is tomorrow's Columbia Center on Global Energy Policy forum on achieving a net zero emissions economy by returning carbon to the Earth. The event will feature a live discussion with Global CCS Institute CEO Brad Page, economist Lord Nicholas Stern and policy expert Jason Bordoff, with remarks from Sen. Lisa Murkowski. Our friend Amy Harder moderates a panel of CEOs after Murkowski.

Good luck trying to keep up with all the events this week. Feel free to call with any questions, stay safe & healthy. Stay tuned [here](#) for our latest COVID-19 and year-end budget updates (Remember FY 2020 ends on Sept 30)

Best,

Frank Maisano
(202) 828-5864
C. (202) 997-5932

FRANKLY SPOKEN

“That an Oregon Democrat and a West Virginia Republican are coming together to address climate change is a testament both to the gravity and urgency of this issue and to their seriousness as legislators.” The draft an example of “good faith, bipartisan cooperation . . . I look forward to working with them on it in the months ahead.”.

House Energy and Commerce Committee Chairman Frank Pallone (D-NJ) in a Sept. 17 statement provided to Inside EPA regarding legislative language from Reps. McKinley and Schrader promoting long-term climate legislation.

“We hope the President and EPA Administrator Wheeler feel a sense of responsibility when RFS compliance costs become even more untenable for refineries of all sizes. The legacy of this Administration’s handling of (the program) will be fewer union refining jobs, facility closures, reduced U.S. refining capacity, and increased imports of foreign biodiesel.”

American Fuel and Petrochemical Manufacturers President/CEO Chet Thompson in a statement following the last week’s announcement the Administration was denying small refiner waivers.

ON THE PODCAST

Yergin Discusses New Book – Daniel Yergin joined last week’s [Power Hungry Podcast](#) for a discussion with host Robert Bryce to discuss his new book, [The New Map: Energy, Climate, and the Clash of Nations](#). The book is a sprawling look at the global energy sector and how it has been roiled by the shale revolution, climate politics, and shifting geopolitics. *The New Map* covers a lot of ground and has several excellent maps. Bryce says the most interesting parts were about China-Russia relations and the South China Sea. Yergin also underscores the importance of the South China Sea and how it could become the site of an international conflict. He includes a map drawn in 1936 by a singular cartographic combatant named Bai Meichu and explains that his map is “at the heart of today’s struggle over the South China Sea.”

ClearPath’s Powell Makes Conservative Case for Nuclear – ClearPath Executive Director Rich Powell joined Jordan Cox of the Clean Energy Leaders Podcast to discuss the importance of nuclear energy. Listen to the podcast, “Rich Powell and the Conservative Case for Nuclear,” on Spotify [here](#).

FUN OPINIONS

Iowa Paper: Waiver Fight Masks Real Problems With Ethanol – An [editorial in the Cedar Rapids \(IA\) Gazette](#) says President Trump’s ethanol waiver reversal won’t save Iowa’s troubled ethanol industry. The Iowa paper said It’s not obvious that Trump’s waivers are the main problem for ethanol demand. American fuel sales peaked in mid-2018 and started a slow decline, Iowa economist [Dave Swenson pointed out](#) in a Twitter thread this week. The Gazette Board adds “it’s unlikely that ethanol will be a permanent fixture of the U.S. energy portfolio or the Iowa economy. While Iowa Democrats fiercely defend the program, there’s growing [skepticism in the environmentalist community](#) about corn ethanol’s net benefits, and progressives nationally are pushing for a transition to 100 percent electric vehicles.

FROG BLOG

Forbes: McKinley-Schrader Looks to Find Common Ground on Climate – A [new column in FORBES](#) from energy expert Ken Silverstein says when a conservative congressman from a coal-producing state says that climate change is the biggest challenge of our lives, it grabs your attention. He notes that WV Republican David McKinley has paired up with Oregon Democrat Kurt Schrader for bipartisan cooperation on climate change legislation, which makes it even more striking. He also asks whether it raises the odds of something actually getting done. The approach presented in a new “discussion draft” of the presumptive McKinley-Schrader bill is both collaborative and all-inclusive. Reps David McKinley of West Virginia and Kurt Schrader of Oregon aim to reduce CO2 emissions by 80% by 2050. The key tenet: investing in research and development — efforts that promote clean technologies and an advanced electric grid that can host more green energies.

IN THE NEWS

McKinley-Schrader Release Discussion Draft of Climate Legislation – Reps. David McKinley (R-WV) and Kurt Schrader (D-OR) released legislative language for their energy and climate proposal. This bipartisan approach would establish an energy innovation program that invests CCUS, advanced nuclear, and renewables with storage for a decade, followed by a clean energy standard for the power sector. McKinley and Schrader are soliciting input from stakeholders on the discussion draft, with the goal of introducing the final version before the end of the year.

“Rather than lurching back and forth depending on who is in control in Washington, we need an energy and climate plan that provides certainty,” **said Rep. McKinley.** “Doing this will require bipartisan consensus. Unlike other proposals, our draft legislation has bipartisan support. Our approach will not only reduce carbon emissions while ensuring affordable and resilient power, it will position the United States as a global leader in clean energy research and innovation.”

“As historic wildfires continue to rage through Oregon, displacing thousands of my constituents and leaving my home state with the worst air conditions in the entire world, the threat of climate change has never been more apparent,” **said Rep. Schrader.** “Climate change puts us all at risk, and in my district that includes our rural, coastal, and agricultural communities. My legislation with Mr. McKinley of West Virginia is the first of its kind: a bipartisan climate change initiative that actually has a chance of passing in the Senate, being enacted, and having a real impact. Our bill is the best way to fight climate change and reduce carbon emissions without putting people out of work. We cannot wait for the “perfect solution” – our communities need a politically viable solution to climate change now.”

Background – Earlier this year, Reps. McKinley and Schrader outlined their approach in [an opinion piece in the USA Today’s Hidden Common Ground Section](#) urging a new, more pragmatic legislative approach.

The plan calls for a decade of public and private investments in clean energy innovation and infrastructure development, followed by new regulatory standards to ensure environmental and energy goals are met. Innovation alone isn’t enough. We must clarify what federal law will (and will not) require, to provide a stable and predictable policy framework for investors and electric utilities in the decades ahead. Executive orders and administrative actions that prolong the political and legal battles won’t solve this problem — but bipartisan legislation can.

[Click to see the language here.](#)

[Click to see a section by section here.](#)

NatGas Keeping Power on During Natural Disasters – Following last week’s hurricane and the busy hurricane season, the American Gas Association (AGA), American Public Gas Association (APGA), Northeast Gas Association (NGA), Southern Gas Association (SGA) and the MEA Energy Association (MEA) announced the creation of a new, expanded National Mutual Aid Program. When a disaster hits a region, the need to restore service can sometimes exceed the capacity of regional resources, and this is exactly the time when the AGA Mutual Assistance Program becomes so

valuable. It is at this point that utilities outside the affected region can step and assist in the recovery. Capitalizing on lessons learned from the American Gas Association's Mutual Assistance Program, created in the aftermath of Hurricane Katrina in 2006, and similar APGA, NGA and SGA initiatives, this voluntary program allows natural gas utilities from across all of the participating associations to quickly respond to emergencies in a coordinated, efficient and timely manner. The need to develop a uniform national mutual aid Agreement across the Associations was a key lesson learned from the Merrimack Valley incident in September 2018, which was the last time national mutual aid was required. Situations in which the program may be used include natural disasters, equipment malfunctions, accidents or other rare occasions where widespread natural gas service is interrupted.

WY Refineries Stung by Trump Ethanol Policy – Following last week's "election-year" ethanol handouts, the Trump administration delivered another blow to Wyoming's refineries when EPA denied relief to several small operators struggling to meet biofuel standards according to reporting in WY newspapers. Refineries, including ones in Wyoming, have said the biofuel requirements are economically prohibitive and to offset the cost, many have applied for annual exemptions from the standards. EPA has historically extended what it calls "hardship relief" to these smaller operators struggling to meet the fuel standards. But recent decisions by the EPA and a federal court have placed that relief on the line. The loss of access to such relief could have severe economic consequences on the facilities transforming crude into fuel in Wyoming, industry representatives said. Sen. John Barrasso, usually a staunch supporter of the president's agenda, delivered a rare rebuke of the Trump administration's decision to deny hardship relief this week and leave the federal court decision unchallenged.

"The administration promised to protect small refineries. Today's announcement by EPA breaks that promise," Barrasso said. "It is one of many poor decisions, which have already contributed to the loss of one small refinery in my home state of Wyoming."

NYT Mag-ProPublica Investigation Looks Potential US Climate Migration – Last week, ProPublica's Abrahm Lustgarten and the *NY Time Magazine* launched the second installment in Lustgarten's series about global migration and climate change, and this one features two years of reporting about how other people will respond to climate pressures in their lives. Lustgarten says he finds his own life at the center of the story about how Californians will absorb their new reality with an annual wildfire season. But it's not just Californians – its people in Arizona and Texas and Florida and Maine and everywhere in between. It's about an American climate exodus in the making. The Mapping of brand new climate data. In case you missed the first story.

ON THE SCHEDULE THIS WEEK

MOST EVENTS SCHEDULED ARE NOW ONLINE WEBINARS

National Clean Energy Week Set – National Clean Energy Week will be held this week. NCEW is the annual week-long celebration of clean energy innovation and help solve the world's most pressing challenges in nuclear, solar, wind, wave, hydropower, geothermal, natural gas, biomass, carbon capture, storage, and waste-to-energy technologies. There are event all week so get all the details here. By going virtual, the NCEW flagship Public Policy Symposium is expanding beyond Washington DC into every home and business in America. Through programming all week long, hear directly from Republican and Democratic policymakers and top speakers in clean energy investment and innovation. Events throughout the week will feature DOE's Mark Menezes and Connor Prochaska, Sen Energy Chair Lisa Murkowski and top Dem Joe Manchin, Senate Bipartisan Climate Caucus Chairs Chris Coons and Mike Braun, Cory Gardner, and former Sens. Kelly Ayotte (now with CRES), Mary Landrieu and Rick Santorum; Reps. Kathy Castor, Garrett Graves. David McKinley, Darrin LaHood, John Curtis, Sean Casten and Paul Tonko; AGA CEO Karen Harbert, NWF's Collin O'Mara, AWEA's Amy Farrell, EEI's Scott Aaronson, Laura Nelson of the Green Hydrogen Coalition, NuScale's Chris Colbert, former Houston Chron Business Editor Laura Goldberg, ClearPath's Rich Powell and WashExaminer's Abby Smith.

UN Meeting, Climate Week NYC – Also this week, the UN meets "virtually" (usually in New York) to hold its International Conference on Sustainable Development and discuss climate, there will be numerous virtual events for Climate Week NYC throughout the week. There are so many events tied to this I cannot list them. For example there are 41 events

tomorrow, 49 events on Wednesday and 50 events on Thursday. I do mention a few, but you can see the [full agenda HERE](#).

Virtual Atlantic Festival Set – The [Atlantic Festival](#) will be held virtually today to Thursday to examine the magnitude of the events of 2020, who we are as a nation, and what we might become. The Atlantic’s marquee festival will bring brave thinking and bold ideas to life with four days of can’t-miss conversations, evening headliners, and more. Hillary Clinton and Dr. Anthony Fauci lead a parade of key speakers.

Forum to Look at Smart Buildings – Guidehouse hosts an EE Global [forum](#) this morning featuring experts from the New York Power Authority, DOE and the Rocky Mountain Institute in live panel discussion on the role Grid Interactive Efficient buildings are playing in this new era of uncertainty and the disruption tied to climate change events. We are seeing the importance of importance of Grid Interactive Efficient Buildings (GEBs) and how they help utilities ensure the balanced, flexible supply and demand of high levels of renewables and decarbonize the electricity system, resulting in resilient cities and communities. The panel will explore key topics and highlight best practices including the role of “smart buildings” as part of the critical infrastructure for managing disruption and the importance of buildings that can be responsive assets. The team will also share insight into emerging opportunities as the smart buildings market matures and evolves from smart building systems to networked building assets.

BP Energy Outlook Set – Today at 11:30 a.m., [CSIS](#) will host BP group chief economist Spencer Dale in a presentation of BP’s “2020 Energy Outlook” which explores the forces shaping the energy transition over the next 30 years. Following his presentation, Spencer will chat with Sarah Ladislaw (CSIS Energy), who will lead a moderated Q&A with the audience.

Forum to Look at Air Rules – The Federalist Society for Law and Public Policy Studies hold a [conference call at Noon](#) on evaluating the EPA’s proposals to retain the existing Particulate Matter and Ozone Standards. My colleague Jeff Holmstead, a former EPA Air Office head, will join a panel.

Forum to Hear Climate CEO Views – The Center for Climate and Energy Solutions [webinar](#) today at 1:10 p.m. focused on CEO perspectives delivering on climate action. A growing number of leading companies are committing themselves to ambitious climate goals. CEOs will engage in a multisector discussion on what’s driving their climate efforts and how they aim to overcome technology, policy and other challenges on the path toward decarbonization.

WCEE Forum to Talk to Enviva – The Women’s Council on Energy and the Environment (WCEE) for a [virtual discussion](#) today at 2:00 p.m. with Dr. Jen Jenkins, vice president and chief sustainability officer of Enviva, to hear how her company is helping power companies reduce their reliance on coal and fight climate change around the world. Enviva is the world’s largest producer of sustainable wood pellets, which provide a reliable, dispatchable, carbon neutral alternative to fossil fuels. Dr. Jenkins will address and discuss the scientific basis for using bioenergy to mitigate climate change, Enviva’s implementation and deployment of its responsible sourcing policies and procedures, as well as how Enviva defines “good” vs. “bad” biomass.

Forum to Look at Grid Resilience – The Atlantic Council holds a [webinar](#) today at 3:30 p.m. on grid resilience during extreme weather events. Climate-related extreme weather events are threatening local communities with greater frequency and destructive force, paralyzing the energy grid and leaving thousands without power for extended periods of time. Now, in the wake of Hurricane Laura and California’s historic heatwave and wildfire season, many remain without electricity during one of the hottest summers on record. As a result, families in affected areas are forced to contemplate leaving their homes until power returns, all amid a global pandemic and lasting economic downturn. Grid resilience measures are vital to safeguarding climate-vulnerable communities facing wind, floods, and fires, especially low-income communities and communities of color who will bear the disproportionate cost of climate change.

Forum to Look at Advance Nuke Tech – ClearPath, TerraPower and GE Hitachi Nuclear Energy hold a [discussion](#) today at 4:00 p.m. of new commercial Natrium™ advanced nuclear technology will feature a cost-competitive sodium fast reactor combined with a molten salt energy storage system.

Forum Tackles Emissions, Resiliency – The Center for Strategic and International Studies holds a webcast tomorrow at 9:00 a.m. focusing on moving from emissions-intensive energy sources to more resilient communities and economies.

Forum to Look at Net Zero Emissions – The Columbia Center on Global Energy Policy is hosting an event tomorrow at 9:00 a.m. on achieving a net zero emissions economy by returning carbon to the Earth. The event will feature a live discussion with Global CCS Institute CEO Brad Page, economist Lord Nicholas Stern and policy expert Jason Bordoff, with remarks from Sen. Lisa Murkowski. Key findings of a climate report co-authored by the Global CCS Institute and Columbia University will be discussed by climate policy and CCS experts, Alex Zapantis and Julio Friedmann. For a closer look at the impacts of climate policy on the energy sector, a conversation with industry leaders moderated by Axios' Amy Harder. The panel will include CARB's Mary Nichols, Air Products CEO Seifi Ghasemi, Drax CEO Will Gardiner, Arab Petroleum Investments Corporation Leila Benal and Gassnova CEO Trude Sundset.

CSIS Forum to Look at Emissions Intensive Energy Sources – The Center for Strategic and International Studies holds a webcast tomorrow at 9:00 a.m. focusing on moving from emissions-intensive energy sources to more resilient communities and economies. The event will focus on tools and strategies that can be deployed in support of just transition planning and implementation. The first session will cover the challenges of gender inequality and informal labor in just transitions, including green jobs programs and issues related to energy access. The second session will explore place-based investment strategies and regional development plans, with a focus on operational issues and key metrics used to analyze investments and their social and economic impacts.

Senate Energy Look at Offshore Techs – The Senate Energy Committee holds a hearing tomorrow at 10:00 a.m. on offshore energy technologies. Witnesses will include DOE's Dan Simmons, BOEM's Walter Cruickshank, Equinor's Siri Espedal Kindem, Stuart Davies of Ocean Renewable Power Company and Clean Air Task Force's Jonathan Lewis.

Coal Transpo Group Meeting Set for Denver – The National Coal Transportation Assn will hold its fall conference both on site in Denver and virtually for those you are unable to attend tomorrow and Wednesday. Speakers include DOE's Lou Hrkman and several others. I will also make an energy/election year presentation.

Forum to Look at Oil, Gas Infrastructure – The US Energy Association holds a webinar tomorrow at 10:00 a.m. on a National Petroleum Council report, "Dynamic Delivery – America's Evolving Oil and Natural Gas Transportation Infrastructure." The initial presentation will provide a comprehensive overview of the NPC's Dynamic Delivery report, including findings and recommendations. The second panel will be a discussion of the Technology Advances and Deployment chapter, covering technologies that can enhance safety, reliability, and environmental performance of the nation's oil and natural gas transportation infrastructure. This will also address cyber security.

Forum to Focus on Climate, National Security – Tomorrow at 11:00 a.m., the American Security Project holds a discussion as a part of Climate Week 2020 that will feature Alice Hill, Council of Foreign Relations Senior Fellow for Energy and the Environment and Vice Admiral Lee Gunn, USN (Ret.) for a conversation with American Security Project COO Andrew Holland on the threats climate change poses to US national security.

House Resources Looks Trump, Renewables – The House Natural Resources Energy and Mineral Resources Subcommittee holds a hearing tomorrow at 12:00 p.m. on Trump Administration record on renewable energy.

Third Way Series Continues – Third Way will continue its series on paths to zero tomorrow at Noon. This event, subtitled "Innovation", brings together leading climate advocates, philanthropists, labor leaders, elected officials, academics, and media from across the Midwest and the nation. Our goal: foster a dynamic conversation focused on how to move forward with ambitious climate action at a time when the nation is also grappling with the pandemic, economic crisis, and resurgent demands for racial justice.

NYT Hosts Cities, Carbon Forum – The New York Times hosts a forum tomorrow at 1:30 p.m. looking at carbon zero cities.

Forum to Look at Cities, Climate Action – Tomorrow at 2:00 p.m., Stand.earth is hosting a Climate Week panel on phasing out fossil fuels featuring city leaders who are using local land use laws and other policy tools to say no to oil and gas expansion. The focus will be on moving away from natural gas with some key cities that are part of that movement participating like Berkeley, King County Washington and Vancouver.

USEA Hosts Indian Minerals Forum – The US Energy Assn hosts another Indian Energy Minerals forum tomorrow at 2:00 p.m. featuring an in-depth discussion and look at some key areas to support tribal energy, mineral and infrastructure development. fossil energy, including coal, oil, natural gas, hydrogen, and CCUS projects, as well renewables are key tribal resources available on tribal lands. Using notions raised from the first webinar, the speakers will explore federal funding, private financing, recent federal tribal energy procedures and working with tribal leadership in an attempt to draw attention to tribal energy development. This series continues with the theme of creating self-determination for Indian country through an energy future focused on environmental best practices, securing public/private funding for tribally lead private partnerships, developing access to new energy markets through new and integrated infrastructure and energy development, education and training, and an outlook on strategic resources and technology for economic opportunities and jobs.

Senate Commerce to Look at Arctic – A Senate Commerce/Science Subcommittee holds a hearing tomorrow at 2:30 p.m. on U.S. Coast Guard capabilities for safeguarding national interests and promoting economic security in the Arctic. The hearing will examine how the Coast Guard's 2019 Arctic Strategic Outlook is being resourced through acquisition plans, training exercises, and infrastructure investments and the importance of USCG presence in the Arctic as commercial sea traffic increases. The hearing will also address the security implications of Chinese and Russian interests in the Arctic and the current state of the USCG's icebreaking capacity. Witnesses will include USCG Vice Commandant Admiral Charles Ray New America's Sharon Burke, retired USAF Major General Randy "Church" Kee of the Arctic Domain Awareness Center and Stephanie Madsen of the At-sea Processors Association

Forum to Look at Innovation – The Global CCS Institute hosts a Climate Week Forum on Wednesday at 9:00 a.m. The event features a discussion with Institute CEO Brad Page, economist Lord Nicholas Stern and policy expert Jason Bordoff, in addition to remarks by Senate Energy Chair Lisa Murkowski. Key findings of a climate report co-authored by the Global CCS Institute and Columbia University – titled "Net-Zero and Geospheric Return: Thinking about 2030" – will be discussed by climate policy and CCS experts, Alex Zapanis and Julio Friedmann. Then, for a closer look at the impacts of climate policy on the energy sector, Axios' Amy Harder will moderate a conversation with industry leaders including CARB Chair Mary Nichols, Air Products CEO Seifi Ghasemi, Drax CEO Will Gardiner, Arab Petroleum Investments Corporation economist Leila Benali and Gassnova CEO Trude Sundset. Closing remarks will be delivered by Sir Alex Halliday of Columbia University's Earth Institute.

BCSE, EE Global Hold Next Forum on Clean Energy Challenges – The Business Council for Sustainable Energy and EE Global will hold the next forum in their clean energy series on Wednesday at 10:00 a.m. to focus on meeting the trio of challenges posed by COVID-19, economic recovery and climate change. This event explores the power of existing clean energy and energy efficiency technologies and expertise. During the first session, experts will look at how energy efficiency plays a key role in economic recovery across the globe – from lessons learned from the Great Recession in 2009, to how energy efficiency helps build resilient societies, stimulates investment, enables a pathway to net-zero and can immediately put people back to work. During the second half of the event, clean energy executives will discuss how to tackle these challenges vis-vis the deployment of clean energy solutions, smart public policy and project design, and strategic deployment of procurement, finance, and technologies.

Senate Enviro to Investigation ESA – The Senate Environment Committee holds a hearing on Wednesday at 10:00 a.m. on the Endangered Species Act Amendments of 2020.

House Panel to Look at Green COVID Recovery – The House Foreign Affairs Europe, Eurasia, Energy and the Environment Subcommittee holds a hearing on Wednesday at 10:00 a.m. looking at green recovery plans to respond to the COVID-19 Crisis. Witnesses include Tufts Fletcher School Dean Rachel Kyte, former National Security Council energy/climate official John Morton, JHU's Jonas Nahm, and AEI's Dalibor Rohac.

Energy Economists Talk CCS, Canadian Projects – The US Energy Economists will hold a forum Wednesday at 11:30 a.m. on innovation and emerging developments in Canadian carbon capture and storage. Representatives from three Canadian companies at the forefront of this innovation – CarbonCure, Carbon Upcycling and Carbon Engineering – will discuss their operations, their activities in the United States, and where they see carbon capture technologies headed in terms of further commercial deployment.

Columbia Forum to Look at Energy Innovation – On Wednesday at Noon, the Columbia Center on Global Energy Policy will hold the virtual global launch of *Energizing America*, which lays out a roadmap to triple U.S. federal investment in clean energy research, development, and demonstration to \$25 billion by 2025. This volume is the most comprehensive guide for policymakers of its kind, with a 100-day plan for the next Administration and Congress and detailed recommendations for boosting investments in cutting-edge technologies, including advanced renewables, energy storage, carbon capture and removal, smart energy systems, and platform technologies. Speakers include former BP CEO Lord John Browne, Rep. Kathy Castor and former DOE official Elizabeth Sherwood-Randall.

Forum to Look at Trillions Trees, Timber Solutions – EESI holds a forum on Wednesday at Noon to look at mass timber and opportunities to diversify the American economy and lower emissions while providing steady, family-sustaining employment for a skilled workforce. Panelists will discuss the environmental and workforce benefits of mass timber, from manufacturing to construction. Rep. Bruce Westerman, forester and sponsor of the Trillion Trees Act, will provide opening remarks. Tyler Freres, Vice President of Freres Lumber Co., Inc. will discuss the burgeoning mass timber manufacturing sector, its implications for U.S. environmental goals and the American workforce, and the policies currently helping mass timber innovation and manufacturing.

Forum to Look at Arctic Infrastructure – The Woodrow Wilson Center's Polar Institute and Sandia National Laboratories hold a webcast on Wednesday at 1:30 p.m. on Arctic research infrastructure and capabilities in North America. Panelists will provide overviews of current research infrastructure in Alaska, Canada and Greenland and plans for addressing emerging needs. Moreover, they will highlight the need for close, international cooperation between North American research institutions.

SEJ Rolls On with Oceans Discussion – The Society of Enviro Journalists continues its multi-session annual conference on Wednesday with a panel at 2:30 p.m. on oceans and fishing issues with former NOAA Administrator Jane Lubchenco as one of the speakers. SEJ will conduct more panels on elections and other issues on next Wednesday September. I will be on the panel next week with House Resources top Republican Rob Bishop, former Interior official Jim Lyons and Dem politico Jen Palmieri (both fellow Annapolis-area residents) to dig deep into election politics and the environment.

Forum Looks at Govs Climate Plans – The United States Climate Alliance holds a virtual discussion on Wednesday at 2:30 p.m. on working together to build an equitable, clean and prosperous future. Governors will discuss the progress of U.S. states on climate action over the past four years and their commitment going forward. Speakers will include Gavin Newsom, Jared Polis, Ned Lamont, Larry Hogan and several more.

EIA to Release Outlook Report – EIA will release its International Energy Outlook on Thursday.

Cybersecurity Event Looks at Supply Chain – On Thursday at 9:30 a.m., the US Energy Assn holds the 9th in the series of USAID webinars on Digitalization and Cybersecurity in the Energy Sector hosted by E3. This webinar will shed light into cybersecurity ISO standards designed to help technical experts and decision makers at utilities around the globe to move forward with certification.

House Transpo Panel Looks at Everglades Management – The House Transportation and Infrastructure Water Resources and Environment Subcommittee holds a hearing on Thursday at 11:00 a.m. on a comprehensive Everglades restoration plan and water management in Florida.

Hayhoe to Join Reuters to Discuss Climate – As the UN General Assembly gathers to discuss climate action and the world recognizes Climate Week, climate scientist Katharine Hayhoe will join Reuters Thursday at 10:00 a.m. to discuss climate change, our ability to tackle the challenge and whether society can adapt to a warming planet.

Event to Look at Trade, Environment – The Washington International Trade Association holds a [webinar](#) on Wednesday at 11:00 a.m. on how existing trade agreements address environmental issues, and how future trade negotiations/agreements can be used to address climate change.

RFF to Look at Climate Insight, Voters – Resources for the Future holds a [webinar](#) on Thursday at 11:30 a.m. focused on climate change and the American Voter focusing on voters' priorities. The event is a timely conversation on American public opinion on climate change. Texas Tech's Kathryn Hayhoe and Jon Krosnick of Stanford are among the panelists moderated by our friend Justin Worland.

WCEE Event Looks at PFAS – The Women's Council on Energy and the Environment (WCEE) holds a [virtual discussion](#) on Thursday at 11:30 a.m. for an update on developments with PFAS. The event will feature a panel of experts who will discuss the latest developments at the federal and state levels to address and regulate PFAS. Speakers include Peter Grevatt of the Water Research Foundation, Alan Roberson of the Association of State Drinking Water Administrators and Amy Dindall of Battelle.

EU Energy Transition Discussion Set – On Thursday at Noon, the Women's Energy Network holds a [lunchtime chat](#) with Carole Mathieu, the head of Head of EU Policies, Center for Energy & Climate, at the French Institute for International Relations (Ifri). Her research areas primarily cover climate change policies and the transformation of energy systems, European energy policy and security of gas supply.

Forum to Look at Minorities, Clean Energy – UPenn's Kleinman Energy Center will hold a [forum](#) on Thursday at Noon to look at access clean and reliable energy and overcoming racial disparities. This panel brings together practitioners and researchers to discuss how we can more equitably distribute the benefits that advances in energy policy and technology have brought to some, but not to all.

Panel to Investigate Salton Sea Restoration – The House Natural Resources Water, Oceans, and Wildlife Subcommittee holds a hearing on Thursday at Noon looking at Federal and State Efforts to Restore the Salton Sea. Cal Natural Resources Agency and Joaquin Esquivel, Chair of the California State Water Resources Control Board.

Chamber to Look Sustainable Investment – The U.S. Chamber of Commerce holds a [virtual discussion](#) on Thursday at 1:00 p.m. focused on sustainability investment and reporting. The event is part of the "Sustainability Summit Series." The event will share findings from our latest research on the status of the ESG landscape as we transition to a post-COVID-19 world, explore private sector leadership in communicating ESG-related information, and discuss the frameworks needed to support companies in proactively disclosing consistent sustainability data.

Forum to Look at Clean Energy Innovation – On Thursday at 1:00 p.m., the Clean Capitalist Leadership Council holds a [discussion](#) explore promising opportunities for cross-border policy innovation and collaboration. The conversation will engage experts from a wide range of US and international private foundations, universities and free market friendly think tanks. In this webinar, Rod Richardson and Jigar Shah will kick off the dialog with an overview of next generation free market policy for clean energy, in the context of COVID recovery.

GTM to Look at MOPR – Greentech Media hosts a [webinar](#) on Thursday at 1:00 p.m. on FERC's recent Minimum Offer Price Rule (MOPR). In this webinar, Wood Mackenzie research analysts will present key findings from their analysis of PJM's extended MOPR, with a focus on its impact on capacity price forecasting and clearing technologies. Leveraging Wood Mackenzie's proprietary capacity market model customized to PJM's market rules, analysts will compare long-term capacity price projections under the previous and new MOPR and discuss risk factors behind these projections. After exploring the key motivations behind the extended MOPR, analysts will dive deep into the forecasted market outcomes, the technologies mostly likely to be affected by the new rule, and strategies to minimize those impacts.

Forum to Look at International Climate Issues – The American Society of International Law [holds virtual discussion](#) on Thursday at 1:00 p.m. on Climate Change and International engagement on environmental issues. The event is part of the "International Law and the 2020 Presidential Election" series. Our friend David Banks is among the speakers.

SAFE to Launch New China Rare Supply Chain Analysis – Securing America’s Future Energy (SAFE) holds the launch of *The Commanding Heights of Global Transportation*, a paper that assesses the competing ambitions of the United States and China for the future of global transportation, and offers policy recommendations to maintain U.S. leadership in this critical industry. SAFE will lead a variety of policy discussions on the era-defining relationship between the U.S. and China, and the American economic and national security consequences of Chinese dominance in the next generation of transportation. The event features energy author Daniel Yergin, Rep. Debbie Dingell and former Obama Intelligence Chief Dennis Blair among the speakers and starts at 2:00 p.m. on Thursday on SAFE’s YouTube channel.

Cato Book Event to Feature Shellenberger – The Cato Institute holds a forum on Thursday at 4:30 p.m. on environmental alarmism. The event will focus on Michael Shellenberger’s new book. In his best-selling book, Shellenberger examines the rise of apocalyptic environmentalism and shows how parts of the environmental movement have become mired in misunderstanding and partisanship. He also gives reasons to oppose a despairing outlook and makes a strong case for rational optimism that humanity will be able to rise to the occasion and effectively tackle environmental problems such as climate change. The panel will feature Shellenberger with comments by Clemson’s Reed Watson and Cato’s Chelsea Follett.

Forum Looks at Environment Issues – On Thursday evening at 7:00 p.m. Federalist Society for Law and Public Policy Studies holds a virtual discussion on "The Future of Our Earth," about bipartisan solutions to adapt to a changing climate, have access to clean air and fresh water, and that habitats are protected, part of the "It Can Be Done Live" series

BU Forum Looks at Local Climate Issues – On Friday at 11:00 a.m., BU’s Institute for Sustainable Energy will hold an on-line event will look at a synthesis of expertise and analysis of local climate-action options and current research. The event will address: Why local climate action needs more urgency, not less. How the pandemic response creates opportunities and risks for local climate action. How socially vulnerable populations can benefit from purposeful responses to the pandemic and climate change.

Forum to Look at SCOTUS Enviro Cases – The American Bar Association holds a virtual discussion on Friday at Noon looking at the Supreme Court’s year in review of environmental cases.

CCUS Workshops Roll On – On Friday at 1:00 p.m., the National Association of Regulatory Utility Commissioners and the Western Interstate Energy continues its Friday series of workshops focused on Carbon Capture, Utilization & Storage. This week, the forum will look at tax incentives and investment efforts featuring Shannon Angielski of the Carbon Utilization Research Council. Forums continue on October 2nd with Lee Beck of the Clean Air Task Force and Oxy’s Bill Swetra; October 9th with Jeff Erikson of the Global CCS Institute and Oct 16th with WY PSC Chair Kara Fornstrom and Great Plains Institute’s Doug Scott.

NPC Virtual Newsmaker with Jane Goodall – The National Press Club will host renowned primatologist and anthropologist Dr. Jane Goodall on Friday at 2:00 p.m. Goodall will join NPC President Michael Freedman for a live-streamed Headliners conversation about the state of the world during the COVID-19 pandemic and the on-going threats caused by climate change.

IN THE FUTURE

Forum to Tackle Carbon Capture – The Carbon Capture Coalition will hold C-suite dialogue on Tuesday, September 29th at 12:00 p.m. looking at the role carbon capture will play in meeting mid-century climate targets, creating and maintaining high-wage jobs in the near-term, and building a new carbon economy. This event will take place. Carbon capture is essential to decarbonizing economic sectors that are fundamental to modern life as we know it – including steel, cement, chemicals and other vital industrial processes. Additionally, the climate math tells us we must concurrently reduce emissions while also directly removing excess CO₂ from the atmosphere to stabilize the climate and meet mid-century climate goals. Carbon capture technologies are proven, but the pace of development needs to

accelerate dramatically to meet the challenge. Leaders across industry, labor, conservation and environmental organizations are increasingly recognizing the central role that carbon capture will play in addressing climate while also creating new economic opportunities for workers and communities. Speakers include LafargeHolcim CEO Jamie Gentoso, Carbon Engineering CEO Steve Oldham, NWF President Collin O'Mara and AFL-CIO Industrial Union Council Executive Director Brad Markell.

USEA to Talk LNG – The US Energy Assn's U.S.-Asia Gas Partnership (AGP) joins with US AID to hold a webinar on Wednesday September 30th to look at how standards play an integral role in attracting project investment, protect workers and the environment, and reduce regulatory complexity for governments. The American Petroleum Institute (API) manages over 700 natural gas and oil standards, which thousands of companies rely on every day while operating around the world, in every segment of the industry. Participants will hear from the U.S. Trade Representative's office on how international standards can help economies meet the requirements of the World Trade Organization (WTO) Technical Barriers to Trade (TBT) agreement.

Forum to Look at Low Carbon, Small Biz – EESI holds a forum on Wednesday September 30th at Noon to look at the challenges faced by small businesses in low-carbon sectors, where federal policies such as the CARES Act worked—or did not work—to alleviate those challenges, and suggestions for the road ahead. Leticia Colon de Mejias, the owner of Energy Efficiencies Solutions and the Policy Co-Chair for the Building Performance Association, will discuss how she is working to address one of the foremost challenges in the energy efficiency industry—a trained workforce. Stuart Davies, Chief Executive Officer of the Ocean Renewable Power Company (ORPC), will share his experience as a small business leader in the marine renewable energy sector, which is poised to grow with investments in the research, development, and deployment of these innovative technologies. All speakers will describe how their work has been impacted by the COVID-19 pandemic.

SEJ Election Panel Set – The final panels for virtual SEJ 2020 will be held at 2:30 p.m. on Wednesday September 30th. The panel next week features yours truly, House Resources top Republican Rob Bishop, former Interior official Jim Lyons and Dem politico Jen Palmieri (both fellow Annapolis-area residents) to dig deep into election politics and the environment.

Cybersecurity Event Looks at Utility Data Protection – The US Energy Assn holds the 10th in the series of USAID webinars on Tuesday October 1st at 9:30 a.m. looking at Digitalization and Cybersecurity in the Energy Sector hosted by E3. This webinar will address data protection considerations, best practices, and legal/regulatory frameworks in an era of smart grids and sophisticated cybersecurity threats.

Wall St Green Forum Set – The 19th Annual Wall Street Green Summit is the longest running and most comprehensive sustainable finance event in the industry. It will be held on Monday October 5th through Oct 9th in New York. Launched in 2002 by Peter Fusaro, the Wall Street Green Summit covers cutting edge content, industry developments and features the leading practitioners in sustainability.

Cybersecurity Event Looks at Supply Chain – The US Energy Assn holds the 11th in the series of USAID webinars on Tuesday October 8th looking at Digitalization and Cybersecurity in the Energy Sector hosted by E3. Cybersecurity extends to all companies directly involved in the delivery of products, services, and solutions, and through all tiers of the global supply chain. Because of this, supply chains can be a considerable risk to power utilities. This webinar will address the supply chain procurement process, understanding the risks and the importance of asking questions.

Climate Forum to Look at Food Systems – The NYT's Climate Hub hosts a forum on Tuesday October 8th at 1:30 m. to look at reimagining food systems to meet the climate challenge.

Gore Project Sets Event – The Climate Reality Project and TED are partnering for two days of presentations and discussions exploring the future we want and how we get there starting at 11:00 a.m. on October 10 with TED's Countdown, a five-hour program of livestreamed TED talks and discussions with world-changing innovators and thought leaders confronting the climate crisis head-on and showing the way to a just, zero-carbon future. Then at 4:00 p.m., *24 Hours of Reality: Countdown to the Future* continues the conversation with 24 full hours of digital presentations and

discussions of how the climate crisis, COVID-19, and racial injustice shape our planet and this incredible moment. All events are led by former Vice President Al Gore and Climate Reality Leaders across the world.

FRANK MAISANO

Senior Principal

Ext. 5864

Policy Resolution Group

Message

From: Maisano, Frank [frank.maisano@bracewell.com]
Sent: 9/14/2020 8:39:52 PM
To: Maisano, Frank [frank.maisano@bracewell.com]
Subject: Sep 14 Bracewell PRG Energy Update: Climate SREs FERC hearings in a Busy Week

Friends,

Sorry I am a little slow today as I was distracted by the Biden wildfire/climate speech (which I predicted earlier in July would/should be a monthly occurrence for him) and this morning's announcement by EPA denying retroactive small refiner waivers to small refiners that have been harmed by the broken RFS program.

Before we go any further, it is important to start today with sad news from last week: the sudden passing of our friend Ted Halstead of the Climate Leadership Council in Spain during a hiking accident. Halstead founded and led a pair of groups that pushed conservatives and big companies to back a carbon tax. While we didn't always agree, Halstead was a climate policy pioneer and visionary. As CLC said in its statement, with his irrepressible optimism, he inspired not only his peers, staff and friends but also a younger generation of climate activists, whom he energized to work towards positive change.

It was a good sports weekend with most colleges and the NFL launching the COVID-impacted football season. But I was captivated by both US Open championships, where Naomi Osaka took the Women's title on Saturday and Dominic Thiem took the men's title yesterday. Both matches were compelling and well-played despite the absence of fans, especially the dramatic 5th set in Sunday's match.

Congress gets back into full swing this week with expected votes, including one on noncontroversial legislation meant to promote the use of electric vehicles. And after last week's agreement on HFCs, we also expect a scramble for energy legislation to re-emerge. In fact, NAM led a broad group calling for action on the legislation. The big hearing will be Wednesday when Senate Energy hosts FERC nominees Allison Clements and Mark Christie. Also Wednesday, the Senate Environment Committee hears from water rule stakeholders and the House Energy & Commerce Environment panel will also hold a hearing on advancing low-carbon technology in the built environment. And given the challenges currently on-going in the West, on Wednesday afternoon a Senate Energy panel also looks at legislation focused on a more aggressive approach to managing forests for wildfire.

The International Energy Agency will release its September Oil Market Report tomorrow in an event at MIT. And the Society of Enviro Journalists starts its multi-session annual conference on Wednesday with a panel of western Governors to discuss about the future of salmon, rivers, dams... and the country. Then Thursday, SEJ holds several "virtual tours" of nuclear issues at the Idaho National Lab and ecosystems and conservation in Idaho's high divide. SEJ will conduct several other panels on elections and other issues on September 23rd and 30th.

Finally, our friends at the National Brain Tumor Society (NBTS) are hosting their first ever virtual benefit concert as part of Childhood Cancer Awareness Month this week on Thursday at 8:30 p.m. They are teaming up with Denver-based, nationally acclaimed artist Mike Massé who will perform some of the best classic rock songs of all time. The event will be fun and an easy way to support children and families fighting cancer. [Click here to learn more](#) about the event and how you can tune in.

Call with questions, stay safe & healthy. Stay tuned [here for our latest COVID-19 Updates](#).

Best,

Frank Maisano
 (202) 828-5864
 C. (202) 997-5932

FRANKLY SPOKEN

“Fortunately, with the ingenuity and innovation of American industry, the next generation of climate-friendly HFC replacements are already being made in this country and sold throughout the world. It’s time we build on those investments and phase down these potent greenhouse gases out of our economy. With this bipartisan agreement, we can and we will. This amendment would spur billions of dollars of economic growth in domestic manufacturing and create tens of thousands of new jobs, all while helping our planet avoid half a degree Celsius in global warming. At a time when we could all use some good news, this is great news for our economy and our planet. Let’s get it done.”

Sen. Tom Carper announcing his agreement with Sens Barrasso and Kennedy to move forward on HFC legislation that previously held up Senate Energy Legislation.

ON THE PODCAST

Former FERC Commissioner LaFleur Discusses CA Blackouts – In this edition of [Columbia Energy Exchange](#), host Bill Loveless reached out to Cheryl LaFleur, a former FERC chair, for her take on the blackouts, which she wrote about in an [op-ed](#) in “State of the Planet,” an online blog at Columbia University’s Earth Institute. They talk about what caused the blackouts during the weekend of August 14, when an extreme heat wave blanketed California and other western states, as well as how they compared to the last such occurrences during the California energy crisis of 2001. In short, LaFleur says, the problem isn’t California’s solar and wind systems, which operated just as they were supposed to do, but rather the state’s failure to make sure there were other energy resources to meet peak demands for electricity – especially for air conditioning to cope with the heat – when the sun wasn’t shining and the wind wasn’t blowing. Adding to the difficulty is California’s preference to control its own power market rather than participate in a regional market, she says. They also discuss that as well as the political fall-out from the blackouts, with critics of the state’s climate policies claiming those measures risk the reliability of the California grid, while supporters of those policies saying they’re as necessary as ever to combat climate change.

RFF Podcast Talks Energy with Duke Power Exec – On this episode of RFF’s [Resources Radio](#), host Daniel Raimi talks with Tim Latimer, the cofounder and chief executive officer of Fervo Energy, a geothermal energy developer. Latimer makes clear how geothermal energy—while comprising only a tiny portion of America’s total current energy use—could be an essential part of future decarbonization efforts. But despite the ubiquity of hot rocks across the Earth and the relative success of geothermal energy in places as disparate as California and Kenya, Latimer also cautions that technological innovations will be necessary to reduce both the environmental impacts and the costs.

FUN OPINIONS

WSJ: Wildfire Power Eclipse – In an [editorial](#) in the *Wall Street Journal*, the board expresses concerns for those impacted by wildfires in California, highlighting the need for active forest management, as . At the same time, they write it also exposes the weaknesses of green-only energy policies. The smoke and ash have created a solar-power eclipse in California that is raising the risk of more electric-power blackouts. State regulators in recent years have been ordering shutdowns of nuclear and natural-gas plants that can provide power around the clock and ramp up quickly when demand surges or other electricity sources wane. The problem is that, in thinking about the climate 25 years from now, California’s politicians aren’t thinking at all about how to keep the lights on today.

FROG BLOG

Harder Line Looks at Biden Climate Approach – Amy Harder’s recent [Harder Line Column](#) in Axios this week focuses on Joe Biden’s approach to climate and how it has become by far the most aggressive plan to address climate change in U.S. presidential history. Amy says his path reflects the convergence of science, energy and activism trends, but while the election is focused more on other issues, Biden’s plan will significantly shape future efforts. While detailing the rise of the youth climate movement, Harder also cites challenges such as California’s current reliability problems. “These

blackouts are due, at least in part, to the state's poor handling of an increase of wind and solar energy, experts say. That's because other energy sources need to be available to jump in since it's not always windy or sunny."

IN THE NEWS

Senate HFC Deal Struck – A groups of bipartisan Senators on Thursday announced an agreement to authorize a 15-year phasedown of hydrofluorocarbons, greenhouse gases found in refrigeration and air conditioning. Senate Environment Chair John Barrasso, Ranking Member Tom Carper and John Kennedy agreed to change an amendment offered last winter to S. 2657, the American Energy Innovation Act.

What is in the Deal – The amendment requires EPA to implement an 85% phase down of the production and consumption of HFCs, so they reach approximately 15% of their 2011-2013 average annual levels by 2036. Under the agreement, the revised amendment will also:

- Ensure there are sufficient supplies of HFCs for six, Congressionally-designated essential uses of HFCs that currently have no substitute chemicals, including defense sprays, medical inhalers, semiconductor manufacturing, and mission-critical military uses;
- Preempt state and local governments from regulating HFCs for those Congressionally-designated essential uses for 5 years (unless extended by EPA to a maximum of 10 years if there remains no substitute chemical for a use);
- Provide protection for consumers by ensuring that the Environmental Protection Agency's (EPA) acceleration of the 15-year phasedown timeline cannot move faster than technological capacity.
- Maintain the 85 percent phase-down of HFCs, avoiding up to half a degree Celsius of global warming while creating an additional 150,000 direct and indirect U.S. jobs through the expansion of domestic manufacturing of HFC alternative technologies; and,
- Improve the trade imbalance in chemicals and equipment by \$12.5 billion and increase manufacturing output by close to \$39 billion over the next seven years.

AHRI, Alliance Support Plan – The Air-Conditioning, Heating, and Refrigeration Institute and the Alliance for Responsible Atmospheric Policy today expressed strong support for a bipartisan amendment. Enactment of the Barrasso-Carper-Kennedy amendment would settle the uncertain regulatory landscape facing the U.S. HVACR industry by phasing down a class of HFC refrigerants and allowing for a market- and consumer-friendly transition to new and better performing refrigerants and related products and equipment.

"This amendment brings us one step closer to implementing an HFC phasedown and reaping the substantial economic benefits associated with this transition to new refrigerant technologies," said AHRI President and CEO Stephen Yurek. "The amendment will accomplish our industry's refrigerant objectives while protecting consumers and providing significant economic and environmental benefits, and we are grateful to this bipartisan group of Senate leaders for their assistance and foresight."

Energy Legislation Likely to Move – Due to the deal, Senate Energy legislation that was held up in March will likely see a revival. On March 9th, the Senate blocked the American Energy Innovation Act after voting against the cloture motion, which failed by a vote of 47-44. More than 70 organizations across the energy sector are urging congressional leaders to pass the legislation in a letter Friday, saying the legislation represents "one of the most consequential legislative initiatives for modernizing our nation's energy policies" since the 2007 energy law more than a decade ago. **CAN SEND COPY OF LETTER IF YOU WANT IT, let me know.**

BP, Equinor Announce Offshore Wind Partnership – BP agreed to buy a 50 percent stake in two U.S. offshore wind power projects from Equinor. The deal involves the Empire Wind and Beacon Wind assets and is expected to close early next year. Equinor will remain the operator in the development, construction and operations phase for its offshore wind projects. Equinor and BP will jointly consider future opportunities in the US, both for bottom-fixed and floating offshore wind (critical to development in California). As the partnership develops, both companies hope to expand this cooperation further in a market that is forecast to grow to between 600 and 800 gigawatts (GW) globally by 2050.

Trump Expands E15 for Ethanol, Corn – The EPA announced the administration will let E10 pumps (the ones currently pumping gas w/a 10% ethanol blend) be used for E15. In a phone call Saturday with Iowa Sen. Joni Ernst, President Trump said he had signed an order allowing the ethanol industry to use 15% ethanol blends in 10% blend pumps. Trump said the decision would save the ethanol industry hundreds of millions of dollars in savings on pump conversions. Then this morning, EPA denied retroactive small refiner exemptions.

Refiners: No Thanks to SRE Deal, Handout – To deal with those issues, EPA officials are also said to be developing a plan to offset the potential economic damage of denying dozens of refineries waivers from biofuel-usage mandates: giving them cash payouts. Refiners said the plan is ill-conceived that does nothing to help the majority of refinery workers that benefited from the discipline in RIN credit prices attributable to the SRE program. This plan is bad for the refining industry, its workers, and consumers - all of whom the President has promised to protect. EPA has failed to identify either legal authority or available funds to support direct payments, leading most refiners to doubt such relief will materialize.

"EPA has turned a blind eye to merchant refineries and their workers in key battleground states like Pennsylvania, Ohio and Texas—where the effects of recent spikes in RINs prices have inflicted the most damage. Merchant refiners currently face some of the highest expenditures for RINs in a decade; at the close of business on Friday, September 11, RINs prices averaged 227% higher than their price on January 1st 2020. Seven refineries have permanently closed in the past year alone, leaving tens of thousands of lost jobs with consequent impacts on communities, families and small businesses.

RFS mismanagement and cash payments are certainly no solution to the refining industry's current struggles. Instead, EPA should advance mechanisms that control RINs prices under existing legal authority—and at no cost to the Federal Treasury. EPA should also resist efforts to reallocate RINs obligations, particularly those predicated on future SREs that now appear never to be granted. The President promised to take care of refinery workers on numerous occasions. It is now time to honor those promises."

Refiner trade assn AFPM gave EPA a pretty hard punch in the face with its statement:

"The notion that this Administration is "following the rule of law" through its latest betrayal of U.S. refinery workers is laughable. We hope the President and Administrator Wheeler feel a sense of responsibility when RFS compliance costs become even more untenable for refineries of all sizes. The legacy of this Administration's handling of RFS will be fewer union refining jobs, facility closures, reduced U.S. refining capacity, and increased imports of foreign biodiesel.

"Telling ethanol interests everything they want to hear in a press release is not going to increase the amount of ethanol that gasoline can absorb or do anything to help farmers and ethanol producers. EPA knows this. And now they need to answer how they plan to correct the 2020 RFS volumes artificially inflated because of small refinery exemptions that will no longer be granted and how they will protect consumers and U.S. energy security by ensuring 2021 standards are achievable."

NEPA Rule Takes Effect – New rules on implementing the National Environmental Policy Act take effect today after a federal judge declined to block the changes on Friday. The CEQ rule streamlines requirements and speeds up deadlines that federal agencies must follow to study the environmental impacts of permitted infrastructure and other major work. A judge ruled Friday the environmental groups challenging the rule did not make the requisite "clear showing" that they are likely to win on the merits to secure a preliminary injunction.

Report: Minorities Spend More on Energy – The American Council for an Energy-Efficient Economy issued a new report that says communities of color spend significantly more on utilities than white people, with Black, Hispanic and Native American households spending 43% more, 20% more and 45% more, respectively. Low-income households spend three times a share of their total income on energy than others, the report said, making them particularly vulnerable to utility shutoffs.

ON THE SCHEDULE THIS WEEK**MOST EVENTS SCHEDULED ARE NOW ONLINE WEBINARS**

AWEA's September Conferences Go Virtual – The American Wind Energy Association (AWEA) announced that the Wind Resource & Project Energy Assessment Conference and Wind Project Siting and Environmental Conference will be held virtually this September. AWEA is focused on reconstructing these events to create a valuable and successful online experience. Participants will have available live presentations, on-demand sessions, one on one networking, and shared social experiences.

Bloomberg Green Festival Set – The Bloomberg Green Virtual Festival will be held this week. The event will feature leading voices working at the edge of change to foster solutions-oriented conversations. The five-day festival will feature a cross section of visionaries from business, design, culture, food, technology, science and entertainment in a smart mix of panels, presentations, fireside chats, and interactive demonstrations. The Green Festival will be a true thought leadership experience operating at the crossroads of sustainability, design, culture, food, technology, science, politics and entertainment. Speakers include former EPA head Gina McCarthy.

Forum to Look at DOE Fossil Program – The US Energy Association holds a virtual discussion today at 2:00 p.m. on DOE-EE's Office of Clean Coal and Carbon Management's Strategic Vision through 2024. This strategy envisions new opportunities for modular, highly-efficient coal plants to produce electricity with near-zero CO2 emissions for seamless integration with renewables on the modern grid. The strategy represents a rethinking of coal and coal resources to create a diverse set of valuable products and generate cleaner hydrogen for industry. Technologies developed to capture and utilize carbon from coal can also be applied to natural gas, biomass, and industrial sources of carbon to achieve carbon-neutral or net-negative emissions. DOE's Lou Hrkman leads a group of DOE speakers.

Biofuels Summit Set – Growth Energy holds its Biofuels Summit this week starting today, continuing with virtual Hill visits tomorrow through Thursday.

UNM Forum Looks at Biodiversity – The U of New Mexico Biodiversity Webinar Series—Fall 2020 holds a webinar today at 3:00 p.m. focused on the Species in Peril project at UNM in partnership with Sen Tom Udall, Rep. Deb Haaland, New Mexico BioPark Society, and the Southwest Environmental Center. They will also be joined by NatGeo's Enric Sala.

CHP Leaders Meet – The Combined Heat and Power Alliance, the leading national voice for the deployment of combined heat and power (CHP) and waste heat to power (WHP), is hosting the National Summit on CHP tomorrow to Thursday. The Summit will convene a diverse group of stakeholders, including industry experts, end users and potential hosts, government leaders, policymakers, utilities, climate advocates, and other members of the clean energy community. It will be an opportunity to showcase the many benefits of CHP including reduced emissions, resilience and reliability, and economic competitiveness. The conference will be particularly focused on CHP's role in decarbonization for a low-carbon future.

Leaders to Address Energy Conference – The Energy Thought Summit 2020 will be held virtually tomorrow to Thursday. Speakers will include CEOs from CPS Energy, Exelon Utilities, PSEG and Austin Energy.

LNG Forum to Look at Indo-Pacific Region – The US Energy Assn holds a forum tomorrow at 7:00 a.m. on creating favorable investment climates and economic conditions for natural gas in the Indo-Pacific. As regional energy demand continues to grow over the next 10 years, the share of LNG demand is expected to nearly double. Meeting this demand growth will require \$80 billion in LNG infrastructure investment in the Association of Southeast Asian Nations (ASEAN) and India combined. The webinar will discuss the steps that the South and Southeast Asian energy sectors and policymakers should take to create a promising investment climate and the necessary economic conditions for natural gas development. Our friend Charles Riedl of the Center for Liquefied Natural Gas is among the speakers.

WCEE Event to Talk Election – The Women's Council on Energy and the Environment holds a forum tomorrow at 8:30 A.M. where WCEE Board Member Loretta Prencipe will hold a conversation with E&E News Reporter Adam Aton about

energy and environmental issues in an election year. Few industries see more rapid evolution today than energy, where constant strides are being taken to improve our ability to power society while mitigating climate change. Presented in partnership with the E&E News, this discussion will focus on how energy and environment continue to define and polarize politics in this critical election year.

MIT to Host IEA – The [MIT Energy Initiative](#) hosts an event tomorrow at 10:00 a.m. with IEA Executive Director Fatih Birol. The event will provide IEA's Outlook for global energy and climate trends post-COVID-19. Speaking of IEA, leaders will also release their monthly [Oil Market Report](#) in September 15th. The OMR is the exclusive source for official government statistics from all OECD countries, as well as selected non-OECD countries, together with both historical datasets and supply-and-demand forecasts for the year ahead. Featuring tables, graphs and statistics, the OMR provides all the data necessary to perform ad-hoc analysis and track oil market developments and to identify trends in production, consumption, refining, inventories in OECD countries and prices for both crude and products.

Brookings Looks at Utility Bill Affordability – Tomorrow at 10:00 a.m., the Brookings Metropolitan Policy Program will convene a [discussion](#) examining the challenges around affordability and exploring solutions that will bring relief to household budgets. Buffalo Mayor Byron Brown will provide keynote remarks on innovative ways the city is providing relief to households struggling with utility costs. Two panel conversations will follow to break down how utility costs can be tracked and measured and explore tech-based solutions designed to achieve greater affordability for households in need of financial support.

CSIS to Look at Decarb – Tomorrow at 10:30 a.m., the Center for Strategic and International Studies (CSIS) holds its fifth session in the [Climate Solutions Series](#), looking at decarbonizing the built environment. This online event will examine emissions from the buildings sector and the opportunities and challenges for its decarbonization. Clay Nesler (Johnson Controls) will give an overview of the buildings sector, the sources of emissions, and provide the perspective of private-sector companies working to develop low- and zero-carbon solutions. Debbie Weyl (World Resources Institute) will share how opportunities and challenges to decarbonization differ around the world. Amy Cortese (New Buildings Institute) will then discuss the domestic environment for zero-carbon buildings in the U.S. and share some case studies of successes. The session will close with a panel discussion on the policy and technological aspects of the decarbonization of buildings.

WRI Forum to Look at Climate Challenges – Tomorrow, the World Resources Institute holds a [webinar](#) to learn more about the Science Based Targets initiative's work to enable companies to set net-zero targets in line with a 1.5°C future, including a new paper laying out the foundations for credible, science-based net-zero targets for the private sector. The event will take a deep dive into the scientific context and main findings of the paper, learn about our ongoing work to develop a framework for corporate net-zero targets, and have an opportunity to ask questions directly to experts.

RFF Forum to Look at Geothermal – Resources for the Future holds a [discussion](#) tomorrow at Noon on the uses of geothermal energy/enhanced geothermal systems in both direct heating and electricity generation. Geothermal energy expert and Cornell University professor Todd Cowen will delve into the state of geothermal technology, the challenges that currently exist, and recent policy drivers impacting geothermal energy. RFF Senior Fellow and Future of Power Initiative Director Karen Palmer will then moderate a Q&A session.

Forum to Look at Climate, Elections – Third Way and U of Michigan hold a [forum](#) on September 15th at Noon to look at climate and path to zero emissions. The event brings together leading climate advocates, philanthropists, labor leaders, elected officials, academics, and media from across the Midwest and the nation. Our goal: foster a dynamic conversation focused on how to move forward with ambitious climate action at a time when the nation is also grappling with the pandemic, economic crisis, and resurgent demands for racial justice. Stacey Abrams will keynote.

Forum to Look at Bio Solutions for GHGs – The Information Technology & Innovation Foundation holds a [webinar](#) tomorrow at Noon on gene editing to provide biological solutions for curbing GHGs. ITIF will present a new report on gene-edited solutions for climate change and a panel discussion on the implications of these technologies.

DOE to Commemorate Biomass Law – The U.S. Department of Energy’s Biomass Research and Development (BR&D) Board is hosting the virtual Bioeconomy Initiative Forum tomorrow and Wednesday that commemorates the 20th anniversary of the Biomass Research and Development Act. This interactive and public forum is designed to solicit stakeholder input and share the Bioeconomy Initiative’s progress, including accomplishments and plans for the BR&D Board’s Interagency Working Groups since the release of *The Bioeconomy Initiative: Implementation Framework*.

Forum Features EPA’s Benevento – Following this morning’s conversation with EPA Administrator Wheeler, the Federalist Society for Law and Public Policy Studies holds a virtual discussion tomorrow at 2:00 p.m. with Associate Deputy EPA Administrator Doug Benevento.

Forum to Look at Military Energy Logistics – The Atlantic Council holds a webinar tomorrow at 3:00 p.m. on operational energy across the Atlantic with US Military and NATO Perspectives focusing on streamlining energy logistics between military partners.

DOE Webinar to Look at Resilience – The DOE’s Better Buildings Program holds a webinar tomorrow at 3:00 p.m. to focus on building resilient communities by getting State and local perspectives. This session will explore how different state and local governments are developing and planning their communities to improve energy efficiency and bolster resilience. Panelists will share how they use federal and local funds, tools, and public-private partnerships to support energy resilience projects. Panelists will also share real-world examples and best practices for building resilient communities. Speakers include Will Lauwers of Massachusetts Department of Energy Resources, Hillsboro, Oregon official Peter Bandom and Megan Levy of Wisconsin’s Office of Energy Innovation

USEA to Look at Geothermal in Africa – The U.S. Energy Association (USEA) and the U.S. Agency for International Development (USAID) holds its second installment of the Geothermal Industrial Park webinar series presented by the US-East Africa Geothermal Partnership (EAGP) at 9:00 a.m. on Wednesday. Baldvin Björn Haraldsson – Founding Partner at BBA//Fjeldco and Antoine Locht, Counsel at BBA//Fjeldco will discuss the Legal aspects and Challenges of geothermal industrial parks. The presenters will discuss legal issues and challenges encountered in geothermal activities, especially in projects involving direct and/or cascade use of geothermal resources.

Forum to Look at India Coal – The Johns Hopkins SAIS Program will hold a forum on Wednesday at 9:30 a.m. economic uncertainties and a just transition for India’s coal mining sector. Although coal mining will play an important role in India for many years to come, the sector’s growth prospects are limited and planning for a just transition should start as early as possible according to speaker Srestha Banerjee, currently leading natural resource management and climate justice initiatives at the International Forum for Environment, Sustainability and Technology (iFOREST), a New Delhi based environmental research and advocacy organization.

FERC Nominees Head to Senate Energy – The Senate Energy Committee will host FERC nominees Allison Clements and Mark Christie to become FERC commissioners on Wednesday at 10:00 a.m.

Senate Environment to Hear from Water Law Stakeholders – The Senate Environment Committee will hold a full committee hearing on Wednesday at 10:00 a.m. to hear from stakeholders on the navigable waters protection rule under the Clean Water Act. Witnesses will include farmer Ray Gaesser, Fletcher Davis Co CEO Doug Davis and New Mexico Environment Department Water Protection Division expert Rebecca Roose.

House Enviro Panel Look at Low-Carbon Techs in Buildings – The House Energy and Commerce Subcommittee on Environment will hold a remote hearing on Wednesday at 10:00 a.m. via Cisco Webex on opportunities for an equitable, low-carbon recovery.

WRI to Talk Nature w NatGeo – On Wednesday at 11:00 a.m., the World Resources Institute hosts a discussion between WRI President and CEO Andrew Steer and Dr. Enric Sala, National Geographic explorer-in-residence and leading conservationist on his brand new book *The Nature of Nature: Why We Need the Wild*. They will dive deep into the enormous risks to human health posed by our relationship with nature and why saving the earth’s wild places can help save humanity.

Web Event to Look at US Coal Transition – EESI holds a forum on Wednesday September 16th at Noon to look at energy transition in coal country. Coal-producing communities around the country have already been experiencing economic turmoil from mine layoffs or closures due to precipitous declines in the demand for coal. These communities are among the most vulnerable to further transitions away from carbon-intensive energy sources and face particular challenges retraining their coal workforce. Sen. Tammy Duckworth, who introduced the Marshall Plan for Coal Country Act this July, will provide introductory remarks.

Panel to Look at Ocean Observations – The National Academy of Sciences, Engineering, and Medicine hold a virtual workshop on Wednesday at 1:00 p.m. on sustaining ocean observations. This event will bring together this diverse groups of stakeholders of ocean observations from multiple sectors. This workshop will explore how adoption of a collective impact organization framework could be undertaken, to help overcome existing barriers to sustained ocean observations.

Senate Energy to Look at Wildfire Management Legislation – The Senate Energy and Natural Resources Public Lands, Forests and Mining Subcommittee holds a legislative hearing on 15 bills on Wednesday at 2:30 p.m. Most are focused on wildfire and forest management issues. See the LIST of bills here.

SEJ Launches – The Society of Enviro Journalists starts its multi-session annual conference on Wednesday with a panel of western Governors to discuss about the future of salmon, rivers, dams... and the country. Then Thursday, SEJ holds several “virtual tours” of nuclear issues at the Idaho National Lab and ecosystems and conservation in Idaho’s high divide. SEJ will conduct several other panels on elections and other issues on September 23rd and 30th. I will be on the September 30th panel with former Interior official Jim Lyons and Dem politico Jen Palmieri (both fellow Annapolis-area residents) to dig deep into election politics and the environment.

USEA Holds Advanced Energy Forum – On Thursday morning, USEA holds in second annual Advanced Energy Technology Forum. The event will explore technological innovation in the energy sector and focuses on research and development in the corporate and government sectors, including national labs and universities. Speakers include Gas Technology Initiative CEO David Carroll and EPRI President Arshad Mansoor, among many others.

Series on Cybersecurity Continues – On Thursday at 9:30 a.m., the US Energy Assn and US AID holds its the eighth in the series of webinars on Digitalization and Cybersecurity in the Energy Sector hosted by E3. Given the complexity of business processes and the wide variety of cyber assets used in the energy sector, there is a long list of cybersecurity standards that address security requirements, security controls, resilience strategies, and technologies. In this two-part webinar series our presenters will introduce standards, commonly known as the NIST Cybersecurity Framework in the US. The framework, complemented by NERC CIPs Standards, is an important first step for cyber professionals to use when assessing and improving their cyber environments.

Webcast to Look at Antarctica – The Woodrow Wilson Center's Polar Institute holds a webcast on Thursday at 9:00 a.m. focused on protecting Antarctica in the postponed 'Super Year of Nature.' At this joint Wilson Center/Pew Charitable Trusts webinar, Lewis Pugh, an endurance swimmer and UN Patron of the Ocean who pioneers swims in the most vulnerable ecosystems on the earth, and José María Figueres, former President of Costa Rica, will discuss the imperative of protecting these unique ocean habitats and a path forward for the three marine protected area proposals.

Forum to Look at Innovation – The Great Plains Institute and World Resources Institute holds a forum on Friday at 10:30 a.m. to hear how Congress can spur economic activity in the U.S. industrial sector, helping to create and maintain jobs in the near-term, while putting American industry on a long-term path to deep emissions reductions, high-wage job retention and creation, technology leadership and economic competitiveness. The webinar is being hosted on behalf of the Industrial Innovation Initiative, an ambitious coalition that brings together key industrial and power companies, environmental organizations, and state officials from Midwestern and Gulf Coast states, which GPI and WRI co-convene. Participants will discuss their recently released economic recovery recommendations for Congress.

House Panel Looks at Diversity, Inclusion at Interior – The House Natural Resources Oversight Subcommittee holds a hearing Thursday at 2:00 p.m. on examining the barriers and Solutions to diversity, equity and inclusion at Interior.

ELI Forum Looks at Biofuels – On Friday at Noon, the Environmental Law Institute holds a forum on advanced biofuels. While once heralded by environmentalists as an innovative carbon neutral energy source, biofuels have since come under scrutiny in the past decade. Concerns stemming from food security, deforestation and land use, the carbon footprint over the life cycle, vehicle modification, and more rendered this once-prized fuel as less desirable in the eyes of some environmentalists. Leading experts to explore these question like practical/policy Challenges, past experiences and COVID impacts on industry as they dive into the next generation of biofuels. Speakers include NRDC’s Luke Tonachel and POET’s Shailesh Sahay, among others.

IN THE FUTURE

National Clean Energy Week Set – From September 21st to 25th, National Clean Energy Week will be held. NCEW is the annual week-long celebration of clean energy innovation and help solve the world’s most pressing challenges in nuclear, solar, wind, wave, hydropower, geothermal, natural gas, biomass, carbon capture, storage, and waste-to-energy technologies. By going virtual, the NCEW flagship Public Policy Symposium is expanding beyond Washington DC into every home and business in America. Through programming all week long, hear directly from Republican and Democratic policymakers and top speakers in clean energy investment and innovation.

UN Meeting, Climate Week NYC – As the UN Meets “virtually” (usually in New York) to hold its International Conference on Sustainable Development and discuss climate, there will be numerous events in NYC on climate during September 21st to 27th

Virtual Atlantic Festival Set – The Atlantic Festival will be held virtually on September 21st to 24th to examine the magnitude of the events of 2020, who we are as a nation, and what we might become. The Atlantic’s marquee festival will bring brave thinking and bold ideas to life with four days of can’t-miss conversations, evening headliners, and more. Hillary Clinton and Dr. Anthony Fauci lead a parade of key speakers.

Forum to Look at Smart Buildings – Guidehouse hosts an EE Global forum next Monday at 10:00 a.m. featuring experts from the New York Power Authority, DOE and the Rocky Mountain Institute in live panel discussion on the role Grid Interactive Efficient buildings are playing in this new era of uncertainty and the disruption tied to climate change events. We are seeing the importance of importance of Grid Interactive Efficient Buildings (GEBS) and how they help utilities ensure the balanced, flexible supply and demand of high levels of renewables and decarbonize the electricity system, resulting in resilient cities and communities. The panel will explore key topics and highlight best practices including the role of “smart buildings” as part of the critical infrastructure for managing disruption and the importance of buildings that can be responsive assets. The team will also share insight into emerging opportunities as the smart buildings market matures and evolves from smart building systems to networked building assets.

BP Energy Outlook Set – Next Monday at 11:30 a.m., CSIS will host BP group chief economist Spencer Dale in a presentation of BP’s “2020 Energy Outlook” which explores the forces shaping the energy transition over the next 30 years. Following his presentation, Spencer will chat with Sarah Ladislaw (CSIS Energy), who will lead a moderated Q&A with the audience.

WCEE Forum to Talk to Enviva – The Women’s Council on Energy and the Environment (WCEE) for a virtual discussion with Dr. Jen Jenkins, vice president and chief sustainability officer of Enviva, to hear how her company is helping power companies reduce their reliance on coal and fight climate change around the world. Enviva is the world’s largest producer of sustainable wood pellets, which provide a reliable, dispatchable, carbon neutral alternative to fossil fuels. Dr. Jenkins will address and discuss the scientific basis for using bioenergy to mitigate climate change, Enviva’s implementation and deployment of its responsible sourcing policies and procedures, as well as how Enviva defines “good” vs. “bad” biomass.

Coal Transpo Group Meeting Set for Denver – The National Coal Transportation Assn will hold its fall conference both on site in Denver and virtually for those you are unable to attend on September 22nd and 23rd. Speakers include DOE's Lou Hrkman and several others. I will also make an energy/election year presentation.

Forum to Look at Innovation – The Global CCS Institute hosts a Climate Week Forum on Wednesday September 22nd at 9:00 a.m. The event features a discussion with Institute CEO Brad Page, economist Lord Nicholas Stern and policy expert Jason Bordoff, in addition to remarks by Senate Energy Chair Lisa Murkowski. Key findings of a climate report co-authored by the Global CCS Institute and Columbia University – titled "Net-Zero and Geospheric Return: Thinking about 2030" – will be discussed by climate policy and CCS experts, Alex Zapantis and Julio Friedmann. Then, for a closer look at the impacts of climate policy on the energy sector, Axios' Amy Harder will moderate a conversation with industry leaders including CARB Chair Mary Nichols, Air Products CEO Seifi Ghasemi, Drax CEO Will Gardiner, Arab Petroleum Investments Corporation economist Leila Benali and Gassnova CEO Trude Sundset. Closing remarks will be delivered by Sir Alex Halliday of Columbia University's Earth Institute.

Forum to Focus on Climate, National Security – Next Tuesday at 11:00 a.m., the American Security Project holds a discussion as a part of Climate Week 2020 that will feature Alice Hill, Council of Foreign Relations Senior Fellow for Energy and the Environment and Vice Admiral Lee Gunn, USN (Ret.) for a conversation with American Security Project COO Andrew Holland on the threats climate change poses to US national security.

Third Way Series Continues – Third Way will continue its series on paths to zero on Tuesday September 22 at Noon. This event, subtitled "Innovation", brings together leading climate advocates, philanthropists, labor leaders, elected officials, academics, and media from across the Midwest and the nation. Our goal: foster a dynamic conversation focused on how to move forward with ambitious climate action at a time when the nation is also grappling with the pandemic, economic crisis, and resurgent demands for racial justice.

NYT Hosts Cities, Carbon Forum – The New York Times hosts a forum on Tuesday September 22nd at 1:30 p.m. looking at carbon zero cities.

BCSE, EE Global Hold Next Forum on Clean Energy Challenges – The Business Council for Sustainable Energy and EE Global will hold the next forum in their clean energy series on September 23rd at 10:00 a.m. to focus on meeting the trio of challenges posed by COVID-19, economic recovery and climate change. This event explores the power of existing clean energy and energy efficiency technologies and expertise. During the first session, experts will look at how energy efficiency plays a key role in economic recovery across the globe – from lessons learned from the Great Recession in 2009, to how energy efficiency helps build resilient societies, stimulates investment, enables a pathway to net-zero and can immediately put people back to work. During the second half of the event, clean energy executives will discuss how to tackle these challenges vis-vis the deployment of clean energy solutions, smart public policy and project design, and strategic deployment of procurement, finance, and technologies.

Energy Economists Talk CCS, Canadian Projects – The US Energy Economists will hold a forum Wednesday September 23rd at 11:30 a.m. on innovation and emerging developments in Canadian carbon capture and storage. Representatives from three Canadian companies at the forefront of this innovation – CarbonCure, Carbon Upcycling and Carbon Engineering – will discuss their operations, their activities in the United States, and where they see carbon capture technologies headed in terms of further commercial deployment.

Forum to Look at Trillions Trees, Timber Solutions – EESI holds a forum on Wednesday September 23rd at Noon to look at mass timber and opportunities to diversify the American economy and lower emissions while providing steady, family-sustaining employment for a skilled workforce. Panelists will discuss the environmental and workforce benefits of mass timber, from manufacturing to construction. Rep. Bruce Westerman, forester and sponsor of the Trillion Trees Act, will provide opening remarks. Tyler Freres, Vice President of Freres Lumber Co., Inc. will discuss the burgeoning mass timber manufacturing sector, its implications for U.S. environmental goals and the American workforce, and the policies currently helping mass timber innovation and manufacturing.

EIA to Release Outlook Report – EIA will release its International Energy Outlook on September 24th.

EU Energy Transition Discussion Set – On Thursday September 24th at Noon, the Women’s Energy Network holds a lunchtime chat with Carole Mathieu, the head of Head of EU Policies, Center for Energy & Climate, at the French Institute for International Relations (Ifri). Her research areas primarily cover climate change policies and the transformation of energy systems, European energy policy and security of gas supply.

Forum to Look at Minorities, Clean Energy – UPenn’s Kleinman Energy Center will hold a forum on Thursday September 24th at Noon to look at access clean and reliable energy and overcoming racial disparities. This panel brings together practitioners and researchers to discuss how we can more equitably distribute the benefits that advances in energy policy and technology have brought to some, but not to all.

Forum to Look at Clean Energy Innovation – On Thursday September 24th at 1:00 p.m., the Clean Capitalist Leadership Council holds a discussion explore promising opportunities for cross-border policy innovation and collaboration. The conversation will engage experts from a wide range of US and international private foundations, universities and free market friendly think tanks. In this webinar, Rod Richardson and Jigar Shah will kick off the dialog with an overview of next generation free market policy for clean energy, in the context of COVID recovery.

Cato Book Event to Feature Shellenberger – The Cato Institute holds a forum on Thursday September 24th at 4:30 p.m. on environmental alarmism. The event will focus on Michael Shellenberger’s new book. In his best-selling book, Shellenberger examines the rise of apocalyptic environmentalism and shows how parts of the environmental movement have become mired in misunderstanding and partisanship. He also gives reasons to oppose a despairing outlook and makes a strong case for rational optimism that humanity will be able to rise to the occasion and effectively tackle environmental problems such as climate change. The panel will feature Shellenberger with comments by Clemson’s Reed Watson and Cato’s Chelsea Follett.

BU Forum Looks at Local Climate Issues – On Friday September 25th at 11:00 a.m., BU’s Institute for Sustainable Energy will hold an on-line event will look at a synthesis of expertise and analysis of local climate-action options and current research. The event will address: Why local climate action needs more urgency, not less. How the pandemic response creates opportunities and risks for local climate action. How socially vulnerable populations can benefit from purposeful responses to the pandemic and climate change.

NPC Virtual Newsmaker with Jane Goodall – The National Press Club will host renowned primatologist and anthropologist Dr. Jane Goodall on Friday, September 25th at 2:00 p.m. Goodall will join NPC President Michael Freedman for a live-streamed Headliners conversation about the state of the world during the COVID-19 pandemic and the on-going threats caused by climate change.

Forum to Look at Low Carbon, Small Biz – EESI holds a forum on Wednesday September 30th at Noon to look at the challenges faced by small businesses in low-carbon sectors, where federal policies such as the CARES Act worked—or did not work—to alleviate those challenges, and suggestions for the road ahead. Leticia Colon de Mejias, the owner of Energy Efficiencies Solutions and the Policy Co-Chair for the Building Performance Association, will discuss how she is working to address one of the foremost challenges in the energy efficiency industry—a trained workforce. Stuart Davies, Chief Executive Officer of the Ocean Renewable Power Company (ORPC), will share his experience as a small business leader in the marine renewable energy sector, which is poised to grow with investments in the research, development, and deployment of these innovative technologies. All speakers will describe how their work has been impacted by the COVID-19 pandemic.

FRANK MAISANO

Senior Principal

Ext. 5864

Policy Resolution Group

Message

From: Maisano, Frank [frank.maisano@bracewell.com]
Sent: 9/8/2020 5:07:07 PM
To: Maisano, Frank [frank.maisano@bracewell.com]
Subject: Sep 8 Bracewell PRG Energy Update: Welcome Back for Fall Energy Action

Friends,

While we are still in crazy COVID times, I hope you had a chance to enjoy the historically-low gas prices for Labor Day. The Kentucky Derby was a treat despite being in September. *Authentic* surprised heavy favorite *Tiz The Law* to win. While I won the exacta box, the rest of my bets were spoiled by *Mr. Big News* who charged late for Show with *Honor AP* 4th. Ouch! *Ny Traffic's* fade and *MBN's* charge cost me some \$\$\$\$. And with the NFL starting Thursday and playoffs in hockey, NBA, and PGA rolling, you might have missed the 55-3 pounding Navy got last night in Annapolis by BYU to start the College Football season: Double-Ouch!

I don't know about you, but I have a ton of meetings today... And Congress slips back into town late in the week, leading to some action in Committees. On Wednesday, House Energy and Commerce markups 38 bills (here is the list) on Wednesday morning while Senate Environment will look at legislation on grizzly bear management. House Science meets Wednesday to look at COVID crisis impacts on university research and DOE Bioresearch issues on Friday.

In webinar land this week, Renewable Gas 360 hosts a webinar tomorrow at 1:00 p.m. featuring notable renewable hydrogen pioneers from North America and Europe including our friend Dave Edwards of Air Liquide while WCEE hosts the CEOs of three large public power systems to discuss trends in the utility sector and the Business Council for Sustainable Energy holds a webinar to discuss powering up an inclusive clean energy workforce with SEIA's Shaun Garrison. Both events start at 2:00 p.m. On Thursday, BPC hosts two separate forums on CFTC/Climate w Sen. Whitehouse and rural economic development with NWF's Collin O'Mara and Christy Plumer of the Theodore Roosevelt Conservation Partnership; Greenbiz hosts an RNG webinar at 1:00 p.m. while the Baker Institute's Ken Medlock and Mark Finley talk US Shale at 4:00 p.m. Finally, the Ex-Im Bank holds its annual virtual conference on Thursday and Friday with Secretary Brouillette Friday morning and our friends Rich Powell of ClearPath and WSJ's Tim Puko moderating panels. Larry Kudlow and Commerce Sect Ross also speak on Thursday.

Finally, on Sept. 6, 1995, (25 years ago Sunday) in a game against the California Angels, Cal Ripken Jr. set a mark for the ages, playing in his 2,131st straight game, shattering a 56-year-old record that had seemed set in stone: Lou Gehrig's string of 2,130 consecutive games played. It was a moment in time that all sports fans and most Americans appreciated because of its blue-collar, workman-like nature. He received a 22-minute standing ovation and made one historic lap around Camden Yards that will long be remembered. I was not there, but I watched history from Jackson Hole where Stacey and I were on our honeymoon after being married a couple days earlier. A quarter century later, I still marvel two things from that week: Cal Ripken's incredible feat and that Stacey has kept me around.

Call with questions, stay safe & healthy. Stay tuned here for our latest COVID-19 Updates.

Best,

Frank Maisano
 (202) 828-5864
 C. (202) 997-5932

FRANKLY SPOKEN

"It's almost 3 p.m. Time to turn off major appliances, set thermostat to 78 degrees (or use fan instead), turn off excess lights and unplug any appliances you're not using. We need every Californian to help conserve energy. Please do your part."

Los Angeles Mayor Eric Garcetti on Twitter pleading with residents to help reduce power load in LA during the weekend's heat wave to prevent rolling blackouts.

ON THE PODCAST

Podcast Talks Energy with Duke Power Exec – On this month's episode of the "[Environmental Insights: Discussions on Policy and Practice from the Harvard Environmental Economics Program](#)" – produced by the [Harvard Environmental Economics Program](#), Economist and energy expert Robert Stavins chats about policy and practice with [Vicky Bailey](#) about her 30 years of experience in high-level, national and international, corporate executive, and government positions in the energy sector. Bailey served as Commissioner of the Indiana Utility Regulatory Commission, a member of the FERC and as head of PSI Energy, Inc., Indiana's largest electric utility, now Duke Indiana.

FUN OPINIONS

Walters: Rolling Blackouts a CA Wake Up Call – In an [op-ed in the San Jose Mercury News](#), *Cal Matters* columnist and long-time editor of the *Sacramento Bee* Dan Walters writes rolling blackouts should serve as a California wakeup call about power supply deficits that have been building for years. He adds the last time the state experienced blackouts, the governor at the time, Gray Davis, was recalled. "Simply put, state political leaders have committed California to phasing out nuclear- and hydrocarbon-powered generation in favor of "renewables — primarily solar panel and windmills — in the name of battling climate change, but have failed to ensure we have enough juice to meet demands during the transition."

FROG BLOG

Reuters Analysis: Utility Interviews Raise Concerns About Viability of Biden Climate Plan – According to an [analysis by Reuters](#) and reporting by energy reporters Val Volcovici and Nichola Groom, the U.S. power industry would likely be unable to meet Democratic presidential candidate Joe Biden's mandate of carbon-free power by 2035 without some major developments in renewables and other technologies, such as battery storage, carbon capture and advanced nuclear power. In a survey of many of the country's largest power producers, most reported that these technologies are either not yet commercially viable or are too costly to deploy.

COVID UPDATE

As Congress returns this week, Senate Republicans intend to consider a slimmed-down version of a Phase 4 COVID-19 relief package after weeks of false starts. The vote is expected to come as soon as Wednesday, as Congress returns from recess.

While the procedural vote is expected to fail thanks to the 60 vote threshold, this exercise serves several purposes:

- First (and at this juncture, most importantly), it gives vulnerable Republican Senators cover to say they voted to provide further relief to the unemployed, small businesses, schools, and other institutions hit hard by the pandemic.
- Second, it sets a marker for what Republicans would be willing to support, albeit a lowball figure that would have to be balanced against the Democrats' multi-trillion dollar target.
- Third, it stands to put moderate Democrats (and their leaders) on the defensive for the first time, forcing them to affirmatively reject a half loaf rather than simply watching Republicans argue among themselves.

As we've said from the beginning, any fruitful negotiation is conditioned on Republicans presenting a united front on a proposal from which a compromise can proceed. In this sense, the apparent likelihood of the GOP marshaling 51 or more votes should be a positive step. But it was difficult enough to see the gap closed between the original trillion dollar

Republican baseline and the \$3.4 trillion HEROES Act passed by the Democratic House. By moving the negotiating goalposts even further out, you're left with a veritable fiscal chasm.

So what's likely to be in this skinny package? The scope tracks with what we outlined in our last update, even as the exact scale remains in flux. Recent media reports suggest something on the order of a \$500 billion bill, though specifics are fluid the as the conference seeks consensus on smaller bore issues.

Overall, this revised version of the previous "skinny" bill is likely to include:

- Enhanced Unemployment: \$300/week federal pandemic unemployment compensation (FPUC) extended through December 27, 2020
- Liability Shield
- Education Funding: \$105B total—\$70 billion for K-12 and \$29 billion for postsecondary education, maintaining formula based on the number of FTE students. Another \$6B for state and tribal accounts.
- Paycheck Protection Program: PPP replenishment and reforms, including new "second draw" loans for qualifying businesses that experience a 35 percent decline in gross receipts. (Up to \$160B in new funding on top of remaining \$100B+.)
- Funding for Testing and Vaccine Preparation
 - \$29B to prepare for and respond to COVID, including development of countermeasures and vaccines, therapeutics and diagnostics, purchase of vaccines,
 - \$16B for testing, contact tracing, mitigation and surveillance to monitor COVID

As a refresher on the liability portion, which according to one [recent survey](#) is the issue most important to Main Street Businesses, the Senate proposal is expected to incorporate the previously released shield language from the HEALs Act, including:

- Federal Cause of Action: Creates a federal cause of action for coronavirus exposure claims that is the exclusive remedy for all claims against a defendant for personal injury caused by an actual, alleged, feared or potential exposure to coronavirus.
- Requirements for Liability: A plaintiff must satisfy the safe harbor and gross negligence or willful misconduct requirements of the claim by clear and convincing evidence.
- Healthcare Protections: Creates an exclusive federal cause of action for coronavirus medical liability claims.
- Labor and Employment: Protects employers from liability under federal labor and employment laws (OSHA, FLSA, ADEA, WARN, GINA, and ADA) for actions taken to comply with coronavirus-related public health guidance and regulations
- Protections for Products: Limits liability for additional products, such as types of PPE and hand sanitizer, if they meet certain FDA requirements

You may say to yourself, "This is not the beautiful \$1.4 trillion packaged that GOP negotiators Mark Meadows and Steve Mnuchin have reportedly offered. Where is that large package?" Think of \$500B as the initial offer, with the figure floated by the Administration something closer to "best and final." The delta would likely be closed by adding back the conspicuous omissions--another round of stimulus checks, state and local funding, and various other concessions that might allow Democrats to save face and get to yes. So, same as it ever was.

Will Congress Be Able to Pass Anything?

While the micro-package is a mixed bag for the Phase Four outlook, the recent news of an agreement between Treasury Secretary Steve Mnuchin and Speaker Nancy Pelosi to keep the upcoming continuing resolution (CR) clean of any COVID-19 relief takes away the most obvious vehicle, and this week's surprisingly good jobs report does little to pressure lawmakers to intercede. While each development has merit in its own right, their sudden confluence makes it much harder to imagine a relief package being signed into law before the election.

Congress is notoriously bad at doing virtually anything unless and until they are faced with a hard deadline or other forcing mechanism. With enhanced unemployment insurance expired, PPP authorization lapsed, and an assortment of executive actions designed to insulate the administration from the political implications of Congress' failure to act, there is no imminent policy "cliff" to speak of.

The only truly must-pass legislative vehicle that can be expected before the election is the short-term government funding package in question. Whatever dwindling hopes we have maintained through the August recess hinged on these negotiations being rebooted and infused with a renewed urgency in the context of avoiding a government shutdown and clearing the legislative decks before the election. Evidently both parties have determined that shutdown fears--and the prospect of a high stakes game of chicken on the precipice of, outweigh the economic risk of failing to act.

The bull case for Phase Four would be that the show of good faith between Mnuchin and Pelosi on a clean CR could provide space for a stand-alone deal. But with Republicans on the verge of laying down a marker that actually moves the two sides farther apart, and just three legislative weeks remaining until both parties begin their all-out sprint to the November election, it seems hard to believe that the incentives line up to get this done.

What's more, this morning's jobs report came in way ahead of expectations, adding 1.4 million jobs in the month of August. Perhaps most importantly, the topline unemployment rate fell to 8.4 percent, far lower than analysts had anticipated, and well ahead of official government estimates that unemployment would remain above 9 percent at year's end.

Such strong figures, especially coming immediately on the heels of the much-hyped expiration of the federal unemployment supplement, is certain to embolden the stingiest elements of the Senate GOP conference, and make it even less

IN THE NEWS

Sportsmen and Sportswomen for Biden Launches – As millions of Americans begin their annual ritual of fall hunting, *Biden for President* announced the launch of *Sportsmen and Sportswomen for Biden* -- a coalition of more than 50 prominent hunters and anglers from across the country, who have come together to endorse Joe Biden for President of the United States. Sportsmen and Sportswomen for Biden's leadership committee includes people who currently or formerly served in leadership positions within some of our nation's most prominent conservation and outdoor advocacy groups. Several members have held prominent positions overseeing hunting, fishing, and wildlife at the state and national levels. The group's leadership committee also includes sitting members of the United States Senate and Members of Congress, a spate of prominent former elected officials, and a number of current state and local elected officials, including several statewide officeholders.

Progressives Urge Biden to Reject Energy Experts – Nearly 150 progressive climate change groups are demanding Democratic presidential nominee Joe Biden exclude anyone with ties to the fossil fuel sector from his administration if he wins the November election. The progressives say a commitment from Biden against including people with fossil fuel ties from his administration would "assuage" any of their lingering concerns stemming from the removal of language calling for ending fossil fuel tax breaks and subsidies from the official Democratic National Committee platform. RIGHT!!! We know there is NO WAY that is true.

Segal Weighs In on Letter – Anyway, Scott Segal, a lawyer and lobbyist at Bracewell with over 25 years of experience working on energy and environmental policy on behalf of utilities, gas producers and refiners:

"The groups advancing this issue are fringe organizations that do not represent the consensus of the environmental community. For most public interest groups, both Heather Zichal and Ernie Moniz were well informed, intellectually honest individuals that have helped paved the way for many of the most important elements of the transition to a clean-energy economy. Their records of distinguished public service are clear and remain undiminished by subsequent associations with public interest groups, academia, or industry."

The flip side of the argument these advocates present is that Zichal and Moniz, by virtue of their above-board associations with innovative companies in the energy sector, have been exposed to the latest in technological developments, scalability, international markets, and the like. This expanded knowledge base, coupled with their long experience in public and non-profit sectors, allows them to assess policy options tempered with real world experience.

That's precisely the kind of advice that Joe Biden or any other policy maker could really use."

CVR, HollyFrontier File Petition to Reverse SRE Decision – HollyFrontier Corp. and CVR refining filed petitions Friday to ask the Supreme Court whether it would review a 10th Circuit Court of Appeals decision from January that threatened the entire refinery exemption program under the Renewable Fuel Standard.

AWEA Joins Forces to Form Clean Power Group – A group of US clean energy companies are joining forces with the American Wind Energy Association to create a new lobbying group. The new group, called the American Clean Power Association, will include companies such as NextEra Energy, Avangrid and Berkshire Hathaway Energy. AWEA plans to merge with the new organization with the goal of propelling "renewables to be the dominant power source in America," it said in a letter to its members. The new group's priorities will include environmental policy, market reform and grid modernization.

EIA: US oil production rebounded in June – The Energy Information Administration said that the US produced 10.436 million barrels per day of oil in June, an increase of 420,000 bpd from May, driven by gains in Texas and North Dakota, the reported. Gross natural gas production in the contiguous US also climbed by 1.6 billion cubic feet per day in June to 99.1 Bcf/d.

ON THE SCHEDULE THIS WEEK

MOST EVENTS SCHEDULED ARE NOW ONLINE WEBINARS

AWEA's September Conferences Go Virtual – The American Wind Energy Association (AWEA) announced that the Wind Resource & Project Energy Assessment Conference and Wind Project Siting and Environmental Conference will be held virtually this September. AWEA is focused on reconstructing these events to create a valuable and successful online experience. Participants will have available live presentations, on-demand sessions, one on one networking, and shared social experiences.

Mexico Gas Summit Set – The 6th Mexico Gas Summit will take place virtually this year today to Thursday. The event will look at Gulf Coast onshore exploration and production, energy logistics and transportation, natural gas commercialization/infrastructure and the refined fuels market.

Forum to Address Charging Infrastructure – The final web forum hosted by the Electrification Coalition and Smart Columbus will be held today at 3:00 p.m. to discuss fortifying regional EV charging infrastructure. More than 1,000 new EV charging ports have been installed in the Columbus Region. This explosion of charging has contributed to a more than four-fold increase in EV purchases in the last three years. The event will look at how Smart Columbus partnered with local utilities to help residents, workplaces, businesses and developers identify the right ways to install EV charging infrastructure for their current needs and for the future.

ACORE Starts REEF-Wall Street Seminars – The American Council on Renewable Energy and IJ Global holds "REEF-Wall Street 2020" as a webinar tomorrow and Thursday on renewable energy and storage capital flows. Speakers will include our friend Greg Wetstone, as well as NRDC's Gina McCarthy, former Rep. Carlos Curbelo and NM Gov. Michelle Lujan Grisham, who keynotes.

House Energy Holds Mark Up – The House Energy and Commerce Committee holds a markup of 38 bills tomorrow at 9:00 a.m., including H.R. 4447 (116), the "Expanding Access to Sustainable Energy Act of 2019" and H.R. 8159 (116), the "Department of Energy Organization and Management Improvement Act." See the full list here.

Senate Enviro to Look at Grizzly Management – The Senate Environment Committee holds a legislative hearing tomorrow at 10:00 a.m. on legislation on Grizzly Bear State Management.

WRI Hosts Former UN Official – The World Resources Institute holds a forum tomorrow at 10:00 a.m. that will be a blunt and visionary conversation on what it will take to overcome barriers to exponentially ramp up climate action. The event will hear from prominent youth activists, podcasters, low-carbon futurists, elected and corporate leaders, philanthropists, and researchers on how nations are falling short and what solutions are out there. Former UN Official and World Bank head Christiana Figueres will headline the panel.

House Science Looks at COVID Impacts on University, DOE Bio Research – The House Science Research and Technology Subcommittee holds a hearing on Wednesday at 11:30 a.m. on the Impact of the COVID-19 Crisis on University Research. Then on Friday at 1:30 p.m., the Committee's Energy panel will look at Biological Research DOE leveraging its capabilities to respond to the COVID-19 Pandemic.

Forum to Look at Conservation Corps – Tomorrow at Noon, EESI will hold a forum the Conservation Corps. Several different conservation corps currently offer opportunities to get Americans involved in shovel-ready projects on federal lands, providing participants with work experience, skills, and a paycheck while contributing to national climate and sustainability goals. Speakers will discuss a variety of conservation corps and the policies that help them thrive. Chas Robles, Director of Conservation Legacy's Ancestral Lands program, will describe its wildland restoration work, and the program's design to expand access to Native youth. Michael French, Director of Operations at Green Forests Work, will discuss how its programs rely on local contractors and community members to restore native forest cover on lands that were disturbed by mining. Tonya Gayle, Chief Development Officer and Josh Owens, Social Enterprise Project Manager of Green City Force, will discuss how corps programs are providing work opportunities and improving environmental outcomes in urban areas.

Forum to Look at Green Stimulus – The Center on Global Energy Policy at Columbia University SIPA, in partnership with the Breakthrough Institute and Data for Progress, holds a webinar tomorrow at Noon on climate progress with a green stimulus. Among the speakers is Breakthrough's Ted Nordhaus and UCSB professor/activist Leah Stokes. Our friend and former NYT climate reporter Kendra Pierre-Louis moderates.

Forum to Focus on Hydrogen – Renewable Gas 360 hosts a webinar tomorrow at 1:00 p.m. featuring notable renewable hydrogen pioneers from North America and Europe. The forum will look at some of the most promising renewable hydrogen production technologies and how these pathways can be promoted and advanced through sensible public policy. Our friend Dave Edwards of Air Liquide will be on the expert panel.

CSIS Holds Book Event – The Center for Strategic and International Studies holds a book discussion tomorrow on "The Nature of Nature: Why We Need the Wild," focusing on "the links between environmental conservation and human security and prosperity. The event will feature Enric Sala, National Geographic Explorer-in-Residence and leading ocean conservationist to discuss his acclaimed new book on the links between environmental conservation and human security and prosperity. Sala's research provides a pathway to trillions more in global economic growth with improved living standards for all—as well as the necessary steps to avoid another global pandemic like COVID-19.

Forum to Look at Clean Energy Workforce – The Business Council for Sustainable Energy holds a webinar tomorrow at 2:00 p.m. to discuss powering up an inclusive clean energy workforce. The event, in partnership with Third Way, will explore opportunities and challenges associated with building and enhancing the clean energy workforce, with a focus on public private partnerships, diversity and inclusion initiatives, and recent survey results on clean energy employer responses to COVID-19. The webinar will also explore workforce development initiatives currently pending in Congress. Speakers include our friend Shaun Garrison of SEIA, former CPUC Commissioner Tim Simon, and BCSE Fellow Camille Moore.

Forum to Feature Utility CEOs – The Women's Council on Energy and the Environment (WCEE) and the Large Public Power Council (LPPC) hold a special webinar tomorrow at 2:00 p.m. The CEOs of three large public power systems will

discuss trends in the utility sector, the opportunities and challenges they present to our industry and the role of innovation in addressing these trends. Given the changing dynamics resulting from decarbonization, the emergence of new technologies and an increase in customer expectations, utility companies must embrace change in order to become nimbler and more innovative. Speakers include Tacoma Public Utilities Director Jackie Flowers, Austin Energy GM Jackie Sargent and AMP CEO Jolene Thompson.

Stanford Web Forums to Cover Climate Topics – The Stanford Woods Institute for the Environment is convening a series of webinars focusing on important emissions reduction elements to be considered as part of a U.S. playbook of climate solution options. The webinars will explore deployment potential, scalability, and mitigation and/or adaptation benefits as compared to costs. The initial event will be Wednesday at 2:00 p.m. and focus on the role of natural solutions, addressing topics like the national and global scope of opportunities, the role of different kinds of incentives, and opportunities and risks for co-benefits to soil fertility, food security, and forest health.

Ex-Im Bank Hosts Export Forum – The Export-Import Bank holds its 2020 annual conference virtually and will focus a major piece of the agenda on energy. Rich Powell of ClearPath leads a discussion on global clean energy technologies on Wednesday while Larry Kudlow and Commerce Secretary Wilbur Ross keynote Wednesday. Energy Secretary Dan Brouillette starts Thursday with an energy outlook followed by a panel moderated by our friend Tim Puko of the WSJ.

BPC to Look at CFTC, Climate – On Thursday at 9:30 a.m., the Bipartisan Policy Center Energy Project is bringing together leaders from the Commodity Futures Trading Commission (CFTC) and Congress in a discussion on climate-related risks in the financial markets. Over the past year, the CFTC has led an effort reviewing the important implications of climate change risk to the U.S. financial system. Please join us for a moderated conversation with leaders from the CFTC and Congress on the nature of these risks and how to manage them. Panel discussion feature Sen. Sheldon Whitehouse, CFTC Commissioner Rostin Behnam and Bob Litterman, Chair of the CFTC Climate-Related Market Risk Advisory Subcommittee.

Forum to look at Utility Cybersecurity – The US Energy Assn, E3 and USAID are hosting webinar on Thursday at 10:00 a.m. looking at digitalization and cybersecurity in the energy sector. This webinar will introduce an "ICS Security Crucible" where you will combine people, processes, and technology to create custom-fitted armor and defenses for your industrial operations based on unique risks, associated impacts, budgets, and known threats. Leveraging real use-cases, participants will learn practical steps in creating their utility security program. When we combine technology with the right people and robust processes, organizations create a strong culture of security and forge lasting legacies for critical infrastructure protection.

Forum to Look at Energy R&D – On Thursday, the Information Technology and Innovation Forum (ITIF) hosts a discussion of the future of federal energy RD&D investment with experts from ITIF, Columbia University's Center for Global Energy Policy (CGEP), and elsewhere, with opening remarks by Rep. Suzanne Bonamici (D-OR). Our friend Jeremy Harrell of ClearPath also speaks.

IEA to Present 2020 Energy Tech Outlook – Columbia's Center on Global Energy Policy holds a webinar on Thursday at 10:00 a.m. hosting IEA's Dr. Fatih Birol and Head of the Energy Technology Policy Timur Gül for a presentation of key findings from Energy Technology Perspectives 2020. Following the presentation, Gül will join Dr. Cheryl Martin, Founder, Harwich Partners, and Dr. Varun Sivaram, CGEP Senior Research Scholar, for a discussion moderated by CGEP Founding Director Jason Bordoff.

DOE Solar Office Holds Stakeholders Web Event – The DOE's Solar Energy Technologies Office (SETO) holds its quarterly stakeholder webinar on Thursday at 11:00 a.m. The focus of the discussion will be photovoltaics (PV). SETO leadership will talk about our near-term PV research portfolio, including our perovskite work and manufacturing goals.

Forum to Look at Solar in Low Income Communities – On Thursday at 1:00 p.m., the Clean Energy Group hosts a webinar that will showcase Norfolk Solar and the Qualified Opportunity Zone (QOZ) Fund formed to advance renewable energy generation, storage, and racial equity in low-income communities in the Hampton Roads region of Virginia.

Forum to Talk Carbon Neutral Polymers – On Thursday at 2:30 p.m., the Atlantic Council Global Energy Center's Global Energy Center will host Jeff Uhrig, president and chief executive officer of Novomer. He will discuss how Novomer aims to produce low-cost, carbon-neutral polymers from sustainable feedstock. Synthetic polymers are widely used to produce a variety of materials for everyday life from personal care products to food packaging. Most synthetic polymers are derived from crude oil and natural gas. Economies across the globe can lower their carbon footprint by scaling up production of polymers made from renewable feedstock. Uhrig will explain how Novomer produces sustainable polymers from plant-based, renewable feedstock and describe how Novomer's technology reduces polymer waste that would otherwise end up in landfills, incinerators, or might leak into the environment.

Forum to Look at Natural Climate Solutions – The Bipartisan Policy Center holds a discussion on Thursday at 3:30 p.m. looking at how to advance both near- and long-term goals for helping Americans get back to work, supporting rural economic development, and enhancing the environmental and climate change-related contributions of U.S. farms, ranches, and forests. Featured speakers include former Farm Service Agency Administrator Jonathan Coppess of the University of Illinois, NWF CEO Collin O'Mara and Christy Plumer, Chief Conservation Officer at the Theodore Roosevelt Conservation Partnership.

Forum to Look at Shale, Future – The Baker Energy Institute at Rice University will host a forum on Thursday at 4:00 p.m. to look at the future of US shale. In this webinar, a panel of experts including Baker's Kenneth Medlock and Mark Finley will explore the future of the U.S. shale patch and what it means for the global oil market.

Forum to Discuss Green Alliance in Germany – On Friday at 1:15 p.m., George Washington University and the Security and Sustainability Forum holds its the third webinar in the Leadership in Our Time series. Reinhard Bütikofer will be interviewed by diplomat András Simonyi. The diplomats will discuss energy and climate, the future of US-EU relations, the EU's response to the crisis in Belarus, EU-China relations, and issues of democracy in the transatlantic community.

IN THE FUTURE

Bloomberg Green Festival Set – The Bloomberg Green Virtual Festival will be held on September 14th to 18th. The event will feature leading voices working at the edge of change to foster solutions-oriented conversations. The five-day festival will feature a cross section of visionaries from business, design, culture, food, technology, science and entertainment in a smart mix of panels, presentations, fireside chats, and interactive demonstrations. The Green Festival will be a true thought leadership experience operating at the crossroads of sustainability, design, culture, food, technology, science, politics and entertainment. Speakers include former EPA head Gina McCarthy.

CHP Leaders Meet – The Combined Heat and Power Alliance, the leading national voice for the deployment of combined heat and power (CHP) and waste heat to power (WHP), is hosting the National Summit on CHP next Tuesday to Thursday. The Summit will convene a diverse group of stakeholders, including industry experts, end users and potential hosts, government leaders, policymakers, utilities, climate advocates, and other members of the clean energy community. It will be an opportunity to showcase the many benefits of CHP including reduced emissions, resilience and reliability, and economic competitiveness. The conference will be particularly focused on CHP's role in decarbonization for a low-carbon future.

Leaders to Address Energy Conference – The Energy Thought Summit 2020 will be held virtually on September 15 - 17. Speakers will include CEOs from CPS Energy, Exelon Utilities, PSEG and Austin Energy.

LNG Forum to Look at Indo-Pacific Region – The US Energy Assn holds a forum on Tuesday September 15th at 7:00 a.m. on creating favorable investment climates and economic conditions for natural gas in the Indo-Pacific. As regional energy demand continues to grow over the next 10 years, the share of LNG demand is expected to nearly double. Meeting this demand growth will require \$80 billion in LNG infrastructure investment in the Association of Southeast Asian Nations (ASEAN) and India combined. The webinar will discuss the steps that the South and Southeast Asian energy sectors and policymakers should take to create a promising investment climate and the necessary

economic conditions for natural gas development. Our friend Charles Riedl of the Center for Liquefied Natural Gas is among the speakers.

WCEE Event to Talk Election – The Women’s Council on Energy and the Environment holds a forum next Tuesday, September 15th at 8:30 A.M. where WCEE Board Member Loretta Prencipe will hold a conversation with E&E News Reporter Adam Aton about energy and environmental issues in an election year. Few industries see more rapid evolution today than energy, where constant strides are being taken to improve our ability to power society while mitigating climate change. Presented in partnership with the E&E News, this discussion will focus on how energy and environment continue to define and polarize politics in this critical election year.

MIT to Host IEA – The MIT Energy Initiative hosts an event on Tuesday September 15th at 10:00 a.m. with IEA Executive Director Fatih Birol. The event will provide IEA’s Outlook for global energy and climate trends post-COVID-19. Speaking of IEA, leaders will also release their monthly Oil Market Report in September 15th. The OMR is the exclusive source for official government statistics from all OECD <https://www.iea.org/events/oil-market-report-september-2020> countries, as well as selected non-OECD countries, together with both historical datasets and supply-and-demand forecasts for the year ahead. Featuring tables, graphs and statistics, the OMR provides all the data necessary to perform ad-hoc analysis and track oil market developments and to identify trends in production, consumption, refining, inventories in OECD countries and prices for both crude and products.

WRI Forum to Look at Climate Challenges – Next Tuesday, the World Resources Institute holds a webinar to learn more about the Science Based Targets initiative’s work to enable companies to set net-zero targets in line with a 1.5°C future, including a new paper laying out the foundations for credible, science-based net-zero targets for the private sector. The event will take a deep dive into the scientific context and main findings of the paper, learn about our ongoing work to develop a framework for corporate net-zero targets, and have an opportunity to ask questions directly to experts.

RFF Forum to Look at Geothermal – Resources for the Future holds a discussion next Tuesday September 15th at Noon on the uses of geothermal energy/enhanced geothermal systems in both direct heating and electricity generation. Geothermal energy expert and Cornell University professor Todd Cowen will delve into the state of geothermal technology, the challenges that currently exist, and recent policy drivers impacting geothermal energy. RFF Senior Fellow and Future of Power Initiative Director Karen Palmer will then moderate a Q&A session.

Forum to Look at Climate, Elections – Third Way holds a forum on September 15th at Noon to look at climate and path to zero emissions. The event brings together leading climate advocates, philanthropists, labor leaders, elected officials, academics, and media from across the Midwest and the nation. Our goal: foster a dynamic conversation focused on how to move forward with ambitious climate action at a time when the nation is also grappling with the pandemic, economic crisis, and resurgent demands for racial justice. Stacey Abrams will keynote.

Forum to Look at Energy R&D – On Thursday at Noon, the Information Technology and Innovation Forum (ITIF) hosts a discussion and a presentation of a new report on gene-edited solutions for climate change and the implications of these technologies.

DOE to Commemorate Biomass Law – The U.S. Department of Energy’s Biomass Research and Development (BR&D) Board is hosting the virtual Bioeconomy Initiative Forum on Tuesday September 15th and Wednesday September 16th that commemorates the 20th anniversary of the Biomass Research and Development Act. This interactive and public forum is designed to solicit stakeholder input and share the Bioeconomy Initiative’s progress, including accomplishments and plans for the BR&D Board’s Interagency Working Groups since the release of *The Bioeconomy Initiative: Implementation Framework*.

USEA to Look at Geothermal in Africa – The U.S. Energy Association (USEA) and the U.S. Agency for International Development (USAID) holds its second installment of the Geothermal Industrial Park webinar series presented by the US-East Africa Geothermal Partnership (EAGP) at 9:00 a.m. on Wednesday September 16th. Baldvin Björn Haraldsson – Founding Partner at BBA//Fjeldco and Antoine Lochet, Counsel at BBA//Fjeldco will discuss the Legal aspects and

Challenges of geothermal industrial parks. The presenters will discuss legal issues and challenges encountered in geothermal activities, especially in projects involving direct and/or cascade use of geothermal resources.

Forum to Look at India Coal – The Johns Hopkins SAIS Program will hold a forum on Wednesday September 16th at 9:30 a.m. economic uncertainties and a just transition for India’s coal mining sector. Although coal mining will play an important role in India for many years to come, the sector’s growth prospects are limited and planning for a just transition should start as early as possible according to speaker Srestha Banerjee, currently leading natural resource management and climate justice initiatives at the International Forum for Environment, Sustainability and Technology (iFOREST), a New Delhi based environmental research and advocacy organization.

Web Event to Look at US Coal Transition – EESI holds a forum on Wednesday September 16th at Noon to look at energy transition in coal country. Coal-producing communities around the country have already been experiencing economic turmoil from mine layoffs or closures due to precipitous declines in the demand for coal. These communities are among the most vulnerable to further transitions away from carbon-intensive energy sources and face particular challenges retraining their coal workforce. Sen. Tammy Duckworth, who introduced the Marshall Plan for Coal Country Act this July, will provide introductory remarks.

SEJ Launches – The Society of Enviro Journalists starts its multi-session annual conference on Sept 16th with a panel of western Governors to discuss about the future of salmon, rivers, dams... and the country. Then Thursday, September 17th SEJ holds several “virtual tours” of nuclear issues at the Idaho National Lab and ecosystems and conservation in Idaho’s high divide. SEJ will conduct several other panels on elections and other issues on September 23rd and 30th. I will be on the September 30th panel with former Interior official Jim Lyons and Dem politico Jen Palmieri (both fellow Annapolis-area residents) to dig deep into election politics and the environment.

USEA Holds Advanced Energy Forum – On Thursday morning September 17th, USEA holds its second annual Advanced Energy Technology Forum. The event will explore technological innovation in the energy sector and focuses on research and development in the corporate and government sectors, including national labs and universities. Speakers include Gas Technology Initiative CEO David Carroll and EPRI President Arshad Mansoor, among many others

ELI Forum Looks at Biofuels – On Friday September 18th at Noon, the Environmental Law Institute holds a forum on advanced biofuels. While once heralded by environmentalists as an innovative carbon neutral energy source, biofuels have since come under scrutiny in the past decade. Concerns stemming from food security, deforestation and land use, the carbon footprint over the life cycle, vehicle modification, and more rendered this once-prized fuel as less desirable in the eyes of some environmentalists. Leading experts to explore these question like practical/policy Challenges, past experiences and COVID impacts on industry as they dive into the next generation of biofuels. Speakers include NRDC’s Luke Tonachel and POET’s Shailesh Sahay, among others.

National Clean Energy Week Set – From September 21st to 25th, National Clean Energy Week will be held. NCEW is the annual week-long celebration of clean energy innovation and help solve the world’s most pressing challenges in nuclear, solar, wind, wave, hydropower, geothermal, natural gas, biomass, carbon capture, storage, and waste-to-energy technologies. By going virtual, the NCEW flagship Public Policy Symposium is expanding beyond Washington DC into every home and business in America. Through programming all week long, hear directly from Republican and Democratic policymakers and top speakers in clean energy investment and innovation.

UN Meeting, Climate Week NYC – As the UN Meets “virtually” (usually in New York) to hold its International Conference on Sustainable Development and discuss climate, there will be numerous events in NYC on climate during September 21st to 27th

Virtual Atlantic Festival Set – The Atlantic Festival will be held virtually on September 21st to 24th to examine the magnitude of the events of 2020, who we are as a nation, and what we might become. The Atlantic’s marquee festival will bring brave thinking and bold ideas to life with four days of can’t-miss conversations, evening headliners, and more. Hillary Clinton and Dr. Anthony Fauci lead a parade of key speakers.

Coal Transpo Group Meeting Set for Denver – The National Coal Transportation Assn will hold its fall conference both on site in Denver and virtually for those you are unable to attend on September 22nd and 23rd. Speakers include DOE's Lou Hrkman and several others. I will also make an energy/election year presentation.

NYT Hosts Cities, Carbon Forum – The New York Times hosts a forum on Tuesday September 22nd at 1:30 p.m. looking at carbon zero cities.

BCSE, EE Global Hold Next Forum on Clean Energy Challenges – The Business Council for Sustainable Energy and EE Global will hold the next forum in their clean energy series on September 23rd at 10:00 a.m. to focus on meeting the trio of challenges posed by COVID-19, economic recovery and climate change. This event explores the power of existing clean energy and energy efficiency technologies and expertise. During the first session, experts will look at how energy efficiency plays a key role in economic recovery across the globe – from lessons learned from the Great Recession in 2009, to how energy efficiency helps build resilient societies, stimulates investment, enables a pathway to net-zero and can immediately put people back to work. During the second half of the event, clean energy executives will discuss how to tackle these challenges vis-vis the deployment of clean energy solutions, smart public policy and project design, and strategic deployment of procurement, finance, and technologies.

Forum to Look at Trillions Trees, Timber Solutions – EESI holds a forum on Wednesday September 23rd at Noon to look at mass timber and opportunities to diversify the American economy and lower emissions while providing steady, family-sustaining employment for a skilled workforce. Panelists will discuss the environmental and workforce benefits of mass timber, from manufacturing to construction. Rep. Bruce Westerman, forester and sponsor of the Trillion Trees Act, will provide opening remarks. Tyler Freres, Vice President of Freres Lumber Co., Inc. will discuss the burgeoning mass timber manufacturing sector, its implications for U.S. environmental goals and the American workforce, and the policies currently helping mass timber innovation and manufacturing.

EIA to Release Outlook Report – EIA will release its International Energy Outlook on September 24th.

Forum to Look at Low Carbon, Small Biz – EESI holds a forum on Wednesday September 30th at Noon to look at the challenges faced by small businesses in low-carbon sectors, where federal policies such as the CARES Act worked—or did not work—to alleviate those challenges, and suggestions for the road ahead. Leticia Colon de Mejias, the owner of Energy Efficiencies Solutions and the Policy Co-Chair for the Building Performance Association, will discuss how she is working to address one of the foremost challenges in the energy efficiency industry—a trained workforce. Stuart Davies, Chief Executive Officer of the Ocean Renewable Power Company (ORPC), will share his experience as a small business leader in the marine renewable energy sector, which is poised to grow with investments in the research, development, and deployment of these innovative technologies. All speakers will describe how their work has been impacted by the COVID-19 pandemic.

FRANK MAISANO

Senior Principal

Ext. 5864

Policy Resolution Group

Message

From: POLITICO Pro Energy [politicoemail@politicopro.com]
Sent: 3/21/2019 10:02:05 AM
To: Wehrum, Bill [Wehrum.Bill@epa.gov]
Subject: Morning Energy, presented by Faraday Grid: The changing hands of formaldehyde safety — FERC meets on transmission policy — Tonko's climate principles

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MORNINGENERGY

03/21/2019 06:01 AM EDT

By KELSEY TAMBORRINO (ktamborrino@politico.com; [@kelseytam](#))

With help from Darius Dixon and Anthony Adragna

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At the center of the Trump administration's work on formaldehyde are two political officials who came to EPA directly from chemical industry groups with a stake in the fight over formaldehyde's dangers. David Dunlap, the top political official at EPA's Office of Research and Development, previously served as a top chemicals expert for Koch Industries, whose subsidiary Georgia-Pacific is one of the country's largest makers of formaldehyde. The other, Nancy Beck, was a top expert for the American Chemistry Council before becoming the No. 2 political official in EPA's chemical safety office. [Read more.](#)

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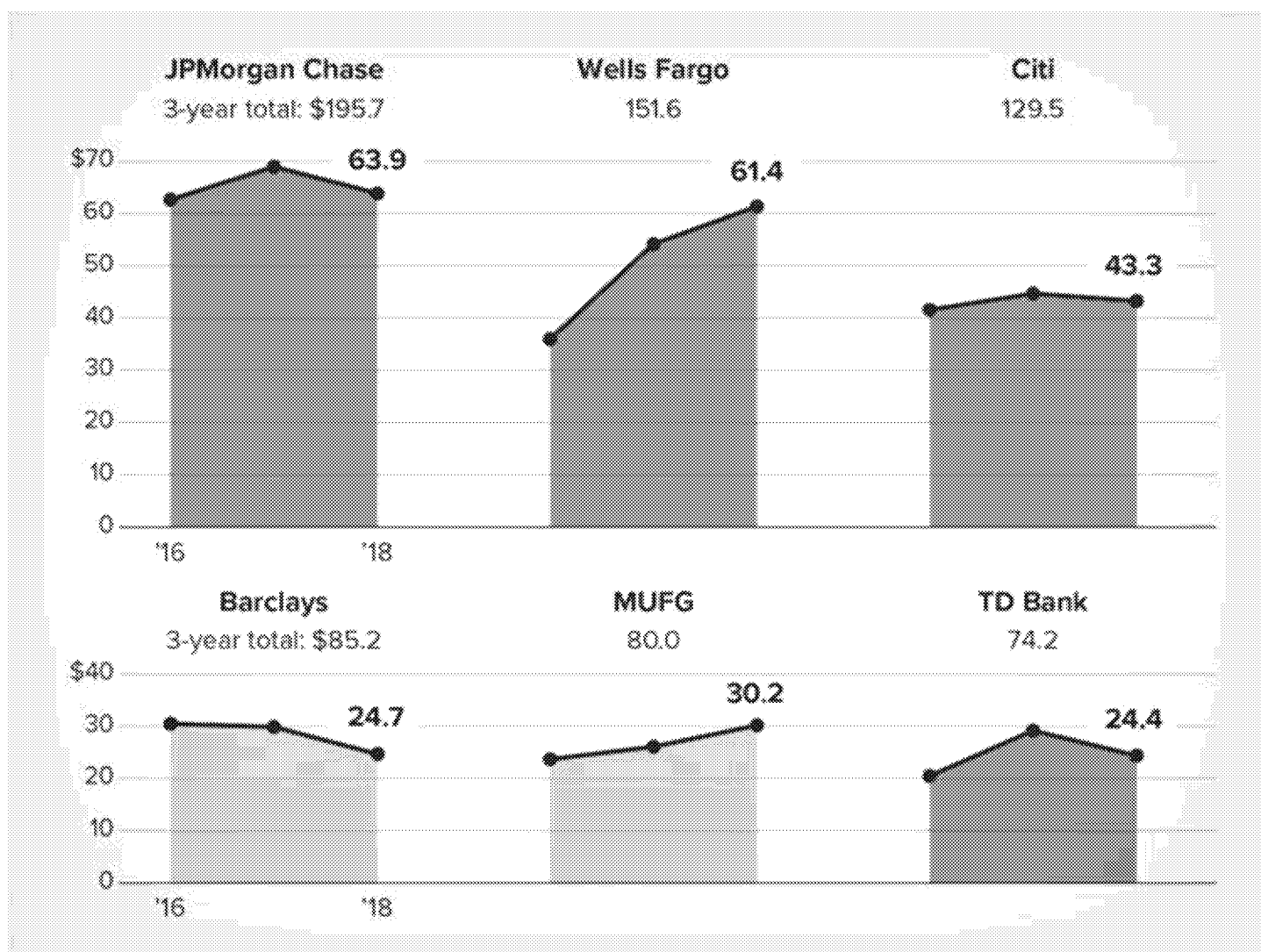
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View the full DataPoint graphic [here](#). Want to add [DataPoint](#) to your Pro account? [Learn more](#).

IN THE BANK: A [new report](#) from six environmental groups found 33 banks have provided \$1.9 trillion to fossil fuel companies in the three years since the Paris climate agreement was adopted. Pro DataPoint's Patterson Clark and Todd Lindeman break those figures down [here](#).

HOW K STREET EXPLAINS THE GREEN NEW DEAL: Monument Advocacy, a firm representing Shell Oil, wood pellet maker Enviva and several big-name tech companies, shared with ME a memo it sent to its clients Tuesday that outlines Democrats' Green New Deal resolution.

The Monument memo says rather than a single "up or down" vote on the GND, "we expect a longer term — and sometimes grinding — policymaking process with legislative fights breaking out on multiple fronts, in multiple committees." That will come via a variety of bills, each on different aspects of the plan. "[I]n other words, implementation of this concept isn't going to be a straight line," it said.

MOVERS AND SHAKERS

— ClearPath will announce today that it has named three to its advisory board: **William Martin**, former deputy Energy secretary during the Reagan administration; **Elizabeth Stolpe**, who was associate director of the White House Council on Environmental Quality under President George W. Bush; and **Marty Hall**, the former chief of staff at CEQ under Bush.

IT'S MARCH MADNESS: HAVE YOU FILLED OUT YOUR PLAYBOOK POOL BRACKET?

Compete against your friends, Playbookers, top political insiders and VIPs to win great prizes, not to mention some legit bragging rights in our **3rd Annual Playbook Pool College Basketball Bracket Challenge!** Submit your bracket before noon on Thursday, March 21. Governors, senators, House members and mayors, as well as some of the biggest names in politics and media, are already in the game, click [HERE](#) to take them on!

THE GRID

- "Gas-tax hike: A rare big idea with bipartisan backing," [The Wall Street Journal](#).
- "Masto says she's close to a deal to remove plutonium secretly shipped to Southern Nevada," [Reno Gazette Journal](#).
- "Philadelphia Energy Solutions executives depart amid financial woes," [Reuters](#).
- "Trump's top economic adviser still supports carbon tax," [E&E News](#).
- "U.S. crude settles at 4-month high after topping \$60 for first time since November," [CNBC](#).
- "Cleanup underway after fire at Texas petrochemicals facility," [Associated Press](#).

HAPPENING TODAY

- 7:30 a.m. — The Association for Federal Information Resources Management holds "[Cybersecurity Summit: Bridging the Cyber Talent Gap in Government](#)," Arlington, Va.
- 8 a.m. — The Center for a New Economy [discussion](#) on "Black Start: Future of Energy Summit," San Juan, Puerto Rico.

8:30 a.m. — The Center for Climate and Energy Solutions and the Climate Registry hold 2019 Climate Leadership Conference, Baltimore.

9 a.m. — The State Department, the U.S. Agency for International Development, the U.S. Water Partnership, the Aspen Institute, Global Water 2020, and the Global Water Challenge conference on "Call to Action: Supporting Women through Water," 2201 C St. NW.

Noon — The Woodrow Wilson Center's China Environment Forum discussion of "Thirst for Power," focusing on "water-energy confrontations facing our planet," as part of the Environmental Film Festival, 1300 Pennsylvania Ave. NW.

2 p.m. — The National Academy of Sciences discussion on "STEM Workforce Diversity: Where Do We Go From Here?" 2101 Constitution Ave. NW.

THAT'S ALL FOR ME!

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Message

From: POLITICO Pro Energy [politicoemail@politicopro.com]
Sent: 3/21/2019 10:02:05 AM
To: Woods, Clint [woods.clint@epa.gov]
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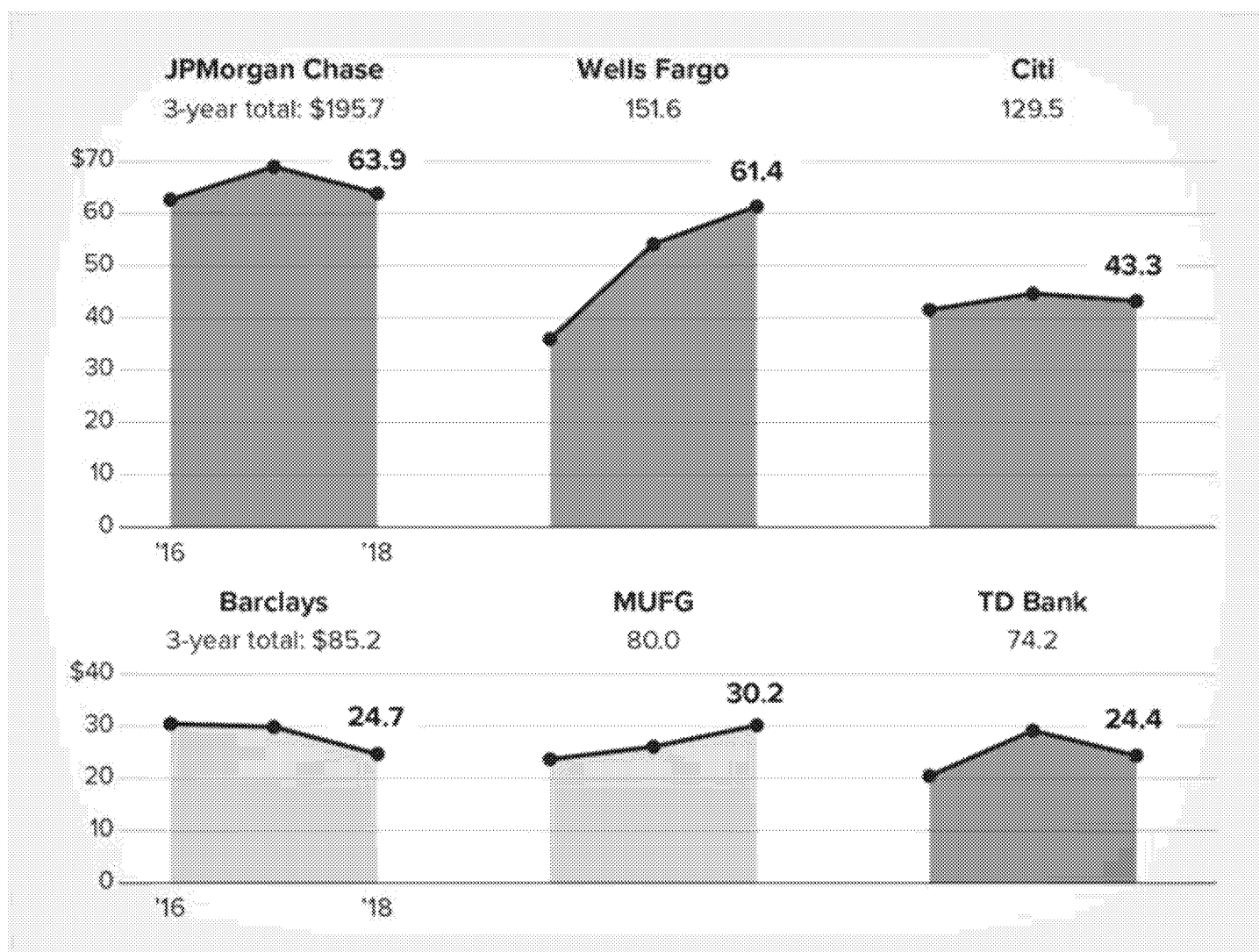
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PFAS BILL COMING: Bipartisan Sens. Jeanne Shaheen and Lisa Murkowski, the chairman of the Energy Committee, will announce today their intention to introduce legislation next week, dubbed "the Protecting Military Firefighters from PFAS Act." The bill would require the Defense Department to include blood testing for PFAS as part of routine physicals for military firefighters. A companion bill will be introduced by bipartisan Reps. Donald Norcross and John Katko, ME is told.



View the full DataPoint graphic [here](#). Want to add [DataPoint](#) to your Pro account? [Learn more](#).

IN THE BANK: A [new report](#) from six environmental groups found 33 banks have provided \$1.9 trillion to fossil fuel companies in the three years since the Paris climate agreement was adopted. Pro DataPoint's Patterson Clark and Todd Lindeman break those figures down [here](#).

HOW K STREET EXPLAINS THE GREEN NEW DEAL: Monument Advocacy, a firm representing Shell Oil, wood pellet maker Enviva and several big-name tech companies, shared with ME a memo it sent to its clients Tuesday that outlines Democrats' Green New Deal resolution.

The Monument memo says rather than a single "up or down" vote on the GND, "we expect a longer term — and sometimes grinding — policymaking process with legislative fights breaking out on multiple fronts, in multiple committees." That will come via a variety of bills, each on different aspects of the plan. "[I]n other words, implementation of this concept isn't going to be a straight line," it said.

MOVERS AND SHAKERS

— ClearPath will announce today that it has named three to its advisory board: **William Martin**, former deputy Energy secretary during the Reagan administration; **Elizabeth Stolpe**, who was associate director of the White House Council on Environmental Quality under President George W. Bush; and **Marty Hall**, the former chief of staff at CEQ under Bush.

IT'S MARCH MADNESS: HAVE YOU FILLED OUT YOUR PLAYBOOK POOL BRACKET?

Compete against your friends, Playbookers, top political insiders and VIPs to win great prizes, not to mention some legit bragging rights in our **3rd Annual Playbook Pool College Basketball Bracket Challenge!** Submit your bracket before noon on Thursday, March 21. Governors, senators, House members and mayors, as well as some of the biggest names in politics and media, are already in the game, click [HERE](#) to take them on!

THE GRID

- "Gas-tax hike: A rare big idea with bipartisan backing," [The Wall Street Journal](#).
- "Masto says she's close to a deal to remove plutonium secretly shipped to Southern Nevada," [Reno Gazette Journal](#).
- "Philadelphia Energy Solutions executives depart amid financial woes," [Reuters](#).
- "Trump's top economic adviser still supports carbon tax," [E&E News](#).
- "U.S. crude settles at 4-month high after topping \$60 for first time since November," [CNBC](#).
- "Cleanup underway after fire at Texas petrochemicals facility," [Associated Press](#).

HAPPENING TODAY

- 7:30 a.m. — The Association for Federal Information Resources Management holds "[Cybersecurity Summit: Bridging the Cyber Talent Gap in Government](#)," Arlington, Va.
- 8 a.m. — The Center for a New Economy [discussion](#) on "Black Start: Future of Energy Summit," San Juan, Puerto Rico.

8:30 a.m. — The Center for Climate and Energy Solutions and the Climate Registry hold 2019 Climate Leadership Conference, Baltimore.

9 a.m. — The State Department, the U.S. Agency for International Development, the U.S. Water Partnership, the Aspen Institute, Global Water 2020, and the Global Water Challenge conference on "Call to Action: Supporting Women through Water," 2201 C St. NW.

Noon — The Woodrow Wilson Center's China Environment Forum discussion of "Thirst for Power," focusing on "water-energy confrontations facing our planet," as part of the Environmental Film Festival, 1300 Pennsylvania Ave. NW.

2 p.m. — The National Academy of Sciences discussion on "STEM Workforce Diversity: Where Do We Go From Here?" 2101 Constitution Ave. NW.

THAT'S ALL FOR ME!

**** A message from Faraday Grid:** More than 100 cities in the U.S. are committed to 100% renewable energy. Smart cities consume more power so require a fundamental shift to new energy systems that are more reliable and resilient. Learn how Faraday Grid will change the way we access and use energy in the future to help enable smart cities. **

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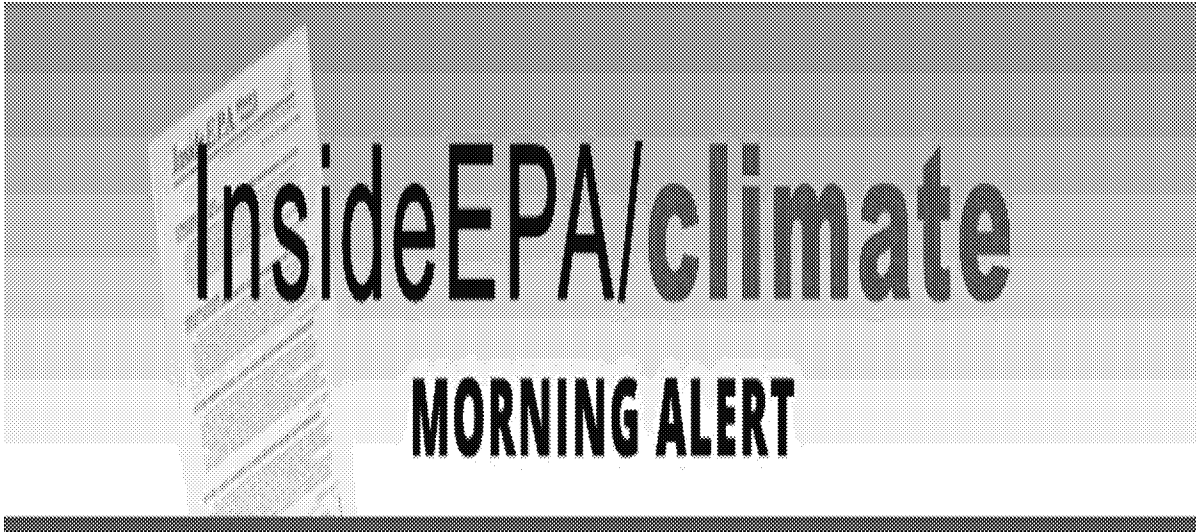
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June 6, 2019

Latest News

SAB Plans To Seek Review Of Major Trump EPA Deregulatory Measures

EPA's Science Advisory Board (SAB) has formally decided to seek review of several major deregulatory measures listed in the agency's spring regulatory agenda, suggesting continued scrutiny of the pending proposals either before or after they go final.

Facing Opposition, EPA Moves Quickly On CWA Section 401 Guide

EPA has sent for White House review its contentious guidance expected to narrow states' authority to reject or modify federal Clean Water Act (CWA) permits under the law's section 401, teeing up release of the new guide by the president's June 8 deadline and a likely legal challenge from states that oppose any new curbs on their authority.

Biden Climate Plan Signals Bid For Support Across Political Spectrum

Former Vice President Joe Biden's climate platform signals an effort to achieve broad support for his 2020 presidential bid by endorsing technologies backed by key unions, adopting a tough line against China to woo Trump voters, and touting his experience by embracing and pledging to "go well beyond" Obama-era policies.

Climate Beat

Litigation: Enviva agrees to add pollution controls at biomass plant

Environmentalists in recent months have been targeting biomass pellet producers over air quality and climate-related concerns.

Loose Change: Warren adds to flurry of 2020 climate proposals

In today's news roundup: Sen. Elizabeth Warren (D-MA) is pitching a \$2 trillion "Green Manufacturing Plan" aimed at deploying clean energy technology, though she is avoiding explicit carbon reduction targets.

Don't Miss It: Webinar on 5G and supply-chain risks

The emergence of 5G technology offers major benefits and poses substantial supply-chain risks for critical industries such as transportation and energy production. Learn how you and your organization can respond to and manage these risks by signing up for a June 6 webinar co-hosted by USTelecom and *Inside Cybersecurity* - from the publishers of *Inside EPA*. The webinar will feature government and industry leaders who will discuss Trump administration initiatives for securing vendors and suppliers amid heightened concerns about 5G networks and the threat from China.

REGISTER NOW

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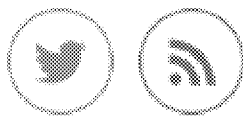
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